

Set	Items	Description
S1	18966	TARGET? OR OBJECT? OR GOAL? OR DESTINATION?
S2	45658	DEVICE? OR CLIENT? OR NODE? OR TERMINAL OR PROCESSOR? OR - MICROPROCESSOR? OR COMPUTER? OR MICROCOMPUTER? OR UNIT? OR IN- STRUMENT?
S3	1731	(WIRELESS OR WIRE()LESS OR MOBILE OR PORTABLE OR CELLULAR - OR CELL OR IN()RANGE OR INRANGE) (2N) (DEVICE? OR CLIENT? OR NO- DE? OR COMPUTER? OR TERMINAL)
S4	10581	STORE OR STORING OR SAVE OR SAVING OR KEEP OR KEEPING OR P- RESERV?
S5	27443	PART? OR BLOCK? OR CHUNK? OR SEGMENT? OR PIECE?
S6	24084	VERSION? OR EDITION? OR RELEASE?
S7	62274	FILE? OR DATA OR INFORMATION OR RECORD?
S8	23486	COMMUNICAT? OR TRANSMIT? OR SEND? OR PASS() (ON OR ALONG OR OVER) OR CONVEY? OR TRANSFER?
S9	47017	UPDATE? OR UP() (DATE? ? OR GRAD?) OR CURRENT OR CHANGE? OR MODIF? OR REVIS? OR REVAMP? OR UPGRAD? OR NEW
S10	28938	DOWNLOAD? OR UPLOAD? OR (DOWN OR UP) ()LOAD? OR READ? OR TR- ANSFER? OR TRANSMISSION OR TRANSMIT? OR DELIVER? OR SEND? OR - WRITE? OR WRITING
S11	41842	MULTIPLE OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL
S12	20758	SELECT? ? OR PICK? ? OR CHOOS? OR DECID? OR SPECIF? OR DES- IGNAT? OR DETERMIN?
S13	26	(LEAST OR SMALLEST OR MINIMAL OR MINIMUM OR LITTLEST) (2N) (- TIME OR PERIOD? OR INTERVAL? OR DURATION OR FREQUENCY)
S14	3	S3 AND S4 AND (S5 (3N) S7)
S15	14	S3 AND S8 AND (S1 (3N) S2)
S16	102	S10 AND (S9 (3N) S6 (3N) S7)
S17	93	S11 (3N) S9 (3N) S6 (3N) S7
S18	0	S12 AND S13 AND S6
S19	0	S14 AND S15
S20	0	S14 AND S16
S21	0	S14 AND S17
S22	15	S16 AND S17
S23	32	S14 OR S15 OR S22
S24	26	S23 NOT PY>2001
S25	26	S24 NOT PD>20010801

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Nov  
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25/5/2

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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01044636 DOCUMENT TYPE: Product

PRODUCT NAME: ePDA Platform (044636)

Collective **Communications** Corp (700762  
8405 Colesville Rd #650  
Silver Spring, MD 20910 United States  
TELEPHONE: (301) 588-8550

RECORD TYPE: Directory

CONTACT: Sales Department

Collective **Communications** offers ePDA Platform, a Java-based tool for delivering business applications to Internet-connected **wireless devices**, enabling any member of the business team to access data from the corporate network in real time, from any location. It is built upon Collective **Communications** ' ePDA Enterprise Server, Client software, and ePDA Developer Toolkit. ePDA Platform can be integrated with existing business processes and is compatible with almost any handheld **device** or **wireless** network. It is an easy-to-use tool that allows businesses to maintain complete centralized control over all applications. Any changes that are made to ePDA applications are automatically implemented across all devices. Additionally, new applications, systems, and devices can be implemented across the enterprise with a single deployment. ePDA Platform enables users to store and access any file or **object** within their handheld **device**.

DESCRIPTORS: Computer Security; Handhelds & Palmtops; Mobile Computing;  
Network Administration; Network Inventory; Remote Network Access;  
Wireless Internet

HARDWARE: Java; Thin Clients

OPERATING SYSTEM: Java; Open Systems

PROGRAM LANGUAGES: Java

TYPE OF PRODUCT: Micro

POTENTIAL USERS: Cross Industry, Administrators of Networks with PDAs

PRICE: Available upon request

REVISION DATE: 20010730

25/5/4

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00131844

DOCUMENT TYPE: Review

**PRODUCT NAMES:** BusinessObjects InfoView Mobile 4.0 (057711); Narrowcast Server (057738)

**TITLE:** Business intelligence goes wireless

**AUTHOR:** Sullivan, Tom

**SOURCE:** InfoWorld, v23 n27 p17(1) Jul 2, 2001

**ISSN:** 0199-6649

**HOME PAGE:** <http://www.infoworld.com>

**RECORD TYPE:** Review

**REVIEW TYPE:** Product Analysis

**GRADE:** Product Analysis, No Rating

eXtensible Markup Language (XML), Dynamic HyperText Markup Language (DHTML), Business Objects' InfoView Mobile 4.0, and Microstrategy's Narrowcast Server are highlighted in a discussion of wirelessly deployed business intelligence. InfoView Mobile BI software allows people to access and analyze corporate information using a **wireless device**. One user is Matthew Meinert, an IT manager, who produces executive reports and distributes them to Palm VIIx handhelds so that senior executives can access the reports from any location. Leaders get real-time information, which has shortened decision-making cycles. Executive reports are designed with a dashboard metaphor and are neither too wide nor too long. InfoView Mobile 4.0 allows customers to download reports onto personal digital assistants (PDAs) via synchronization, and users can see and peruse the reports in either connected or offline mode. Business Objects also supports Pocket IE, Handspring Glazer, and PocketPC **devices**. Among others **targeting** users of handheld **client** devices is Microstrategy, with its Narrowcast Server, a report and information delivery platform that **sends** out information via e-mail, PDAs, pagers, and wireless or wireline phones. Other BI vendors, including Cognos, Actuate, and Informatica, are either building wireless tools or are considering entry to the market. Actuate partners with Plumtree and with some application server vendors to deliver Actuate reports in XML or DHTML formats.

**COMPANY NAME:** Business Objects Inc (527386); MicroStrategy Inc (522643)

**SPECIAL FEATURE:** Charts

**DESCRIPTORS:** Alerts; Business Intelligence; Handhelds & Palmtops; HTML; Marketing Information; Mobile Computing; Palm; Pocket PC; Real Time Data Acquisition; XML

**REVISION DATE:** 20030228

25/5/8

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00124138 DOCUMENT TYPE: Review

PRODUCT NAMES: Surfnotes (003557); GateWave (003565)

TITLE: Clip and Save  
AUTHOR: Hershman, Tania  
SOURCE: Business 2.0, p116(2) May 2000  
ISSN: 1080-2681  
HOMEPAGE: <http://www.business2.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

Surfnotes' namesake site, which automatically culls Web page nuggets on-the-fly, competes with PassCall's GateWave. However, Timo Poropudas, who developed Wow! Wireless, says 'Cutting the **information** into **pieces** conforms with the **wireless device**'s form factor but it does not help in understanding the content.' Nevertheless because browsing standard Web pages on PDAs and mobile phones currently is an unsatisfactory experience, various providers, including Surfnotes, are providing ways to slice up standard Web pages into more usable but information-packed mobile formats. With Surfnotes, users quickly get the gist of Web pages since, says a Surfnotes spokesperson, 'We...actually understand Web pages...within the context of what you are looking at, the most important thing the page has to offer.' Surfnotes are available in multiple types, including business and e-commerce, sports, entertainment, local services, and medical information. Surfnotes are accessible from any device with a Web connection, including PCs, PDAs, and mobile phones. Links provide access to more information, and the initial Surfnote stays small. Surfnotes is based on patent-pending technology that slices Web sites by using thousands of algorithms to recognize subjects and topics.

COMPANY NAME: Surfnotes Technologies Ltd (682071); PassCall Advanced Technologies Ltd (682098)  
DESCRIPTORS: Cell Phones; Handhelds & Palmtops; Information Retrieval; Internet Utilities; Mobile Computing; Wireless Networks  
REVISION DATE: 20030330

25/5/9

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00123159 DOCUMENT TYPE: Review

PRODUCT NAMES: GIS (830278); Data Warehouses (834289)

TITLE: Data Warehouse to Data Powerhouse: The Geospatial Information...  
AUTHOR: Black, James D  
SOURCE: Business Geographics, v8 n2 p26(4) Feb 2000  
ISSN: 1067-456X  
HOMEPAGE: <http://www.bg.geoplace.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

Because the key component of a data storage system (including data storage systems for geographical information systems GISs) is the ability to provide smooth interaction with end-users' devices, users of the future will increasingly need more speed and portability for connectivity to servers, desktops, palmtops, and **cellular** phones. **Portable** devices of

the future will access many applications and data, since Microsoft, Oracle, and Sun Microsystems all plan to offer software as a service via the Internet. Web-based GIS interfaces and viewers are the first generation of GUIs, and many vendors are competing to add more functions and speed to browser windows. Among the special needs of geospatial data in a data warehouse are the ability to manipulate large raster files; archive source data; process data and value-added data over the same area; and move data to and from production systems to users. The only company building data storage for geospatial IT users classifies data as 'actively used' or 'infrequently used.' Because companies often **keep** every **chunk** of **data**, even **data** that are rarely used, they can have access problems. Therefore, many geospatial data users who process thousands of large graphics files use a hierarchical system that provides more versatility in the 'frequently used' and 'infrequently used' categories. Various data 'powerhouses' are briefly described, including MrSID, TerraServer, and TerraSoar.

COMPANY NAME: Vendor Independent (999999)  
SPECIAL FEATURE: Screen Layouts Output Samples  
DESCRIPTORS: Cell Phones; Data Warehouses; GIS; Handhelds & Palmtops;  
Mapping; Mobile Computing; Wireless Internet  
REVISION DATE: 20030330

25/5/12

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00119999 DOCUMENT TYPE: Review

PRODUCT NAMES: DocSpace Drive (778079)

TITLE: Send, Store , and Share Files Affordably

AUTHOR: Heck, Mike

SOURCE: InfoWorld, v21 n26 p86(2) Nov 15, 1999

ISSN: 0199-6649

HOME PAGE: <http://www.infoworld.com>

RECORD TYPE: Review

REVIEW TYPE: Review

GRADE: A

DocSpace Company's DocSpace, a Web collection service, gets very good marks overall, especially for straightforward document sharing, quick establishment of virtual teams, stringent access and version control, and online discussion forums. No important drawbacks were detected during testing. DocSpace can provide enterprises with a secure Web workspace used by dispersed teams who can collaborate on ideas and share documents. A courier function can also economically distribute large files to partners or vendors. DocSpace can lower the cost of projects, reduce time to completion, and enhance teamwork, while requiring almost no startup time, training, or infrastructure investment. As more and more companies move toward outsourced Web-based services, DocSpace fits in as a product that allows users to store , deliver, and collaborate on any type of document via a Web browser. Competing products require users to install code on their own servers while DocSpace can have the user's system configured in just minutes. In addition, users' internal technical staff need not spend time installing and supporting more code. Plausible business uses abound for DocSpace and include workgroup communication, telecommuting, and use with mobile devices to gain continuous access to updated documents.

COMPANY NAME: Critical Path Inc (670413)

SPECIAL FEATURE: Charts Screen Layouts

DESCRIPTORS: Conferencing; Document Management; Groupware; Intranets

REVISION DATE: 20000430

25/5/17

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00105402

DOCUMENT TYPE: Review

PRODUCT NAMES: EPOC (690911)

TITLE: 32-Bit Operating System Rises To Challenge Windows CE

AUTHOR: Williams, Tom

SOURCE: Electronic Design, v45 n20 p144(2) Sep 15, 1997

ISSN: 0013-4872

HOME PAGE: <http://www.elecdesign.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

PSION's EPOC32, an operating system (OS) platform, supports the handheld computer and smart phone market. It is interesting enough to spark renewed interest in many **mobile** ROM-based **devices** . The Pilot personal digital assistant, for instance, has been a popular product, as are cellular telephones and handheld PCs (HPCs). HPCs run Microsoft's Microsoft Windows CE, a spin-off of Windows 95. Microsoft's interest in the HPC market created a whirlwind of development among OS vendors for mobile computing and **communications** devices. Only one of the competing OSs, GEOS, was designed from the outside for **mobile** , handheld **devices** , while Fujitsu's HPC runs a full version of Windows 95. EPOC32 employs a modular architecture based on a client/server model. A central 'tower' of modules is set up to allow each module up the line to use the services of modules below. A base module includes a real-time kernel, a set of device drivers, a user library, and a file server. The user library provides basic services that manage all user threads, including memory cleanup. An engine support module is above the base module to support application functions, including a set of abstract base classes for graphics, a basic database manager, and basic utilities. EPOC32 is very portable among **processors** , but **targets** the ARM architecture of Advanced RISC machines.

COMPANY NAME: Symbian Inc (671924)

DESCRIPTORS: Client/server; Electronics; Embedded Systems; Handhelds & Palmtops; Mobile Computing; Network Software; Operating Systems; RISC Systems; Telecommunications; Windows CE

REVISION DATE: 20010430

25/5/22

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00080237

DOCUMENT TYPE: Review

PRODUCT NAMES: IntelliLink for Windows 3.3.1 (355771); AvailWorks for  
Newton 2.0 (571288); Avail ClipArt for Newton (571296)

TITLE: Roaming Around the Mobile Computing Industry

AUTHOR: Staff

SOURCE: Pen-Based Computing, v5 n7 p4(2) Jul 1995

ISSN: 1054-4011

HOME PAGE: <http://www.volksware.com/pbc>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

IntelliLink for Windows 3.3.1 is one of many products from IntelliLink designed to convert and move data among desktop and **mobile computers**, including personal digital assistants (PDAs). The product provides support for Sharp's Zaurus, a keyboard and pen-based, handheld PDA; other platforms supported include Lotus Organizer 2.0, ACT! For Windows 2.0, and WordPerfect for Windows 6.0. The product **transfers** data among platforms and translates information for display on the **target device**. AvailWorks for Newton 2.0 helps Newton PDA users create attractive documents, providing an integrated feature set, including word processing, spreadsheet, draw, and graph functions, in one application. Ease of use is paramount, and two clip art libraries are included. The developer, Avail Technologies, also announced Avail ClipArt for Newton, a series of five clip art packages.

COMPANY NAME: IntelliLink Corp (520292); Avail Technology Inc (581062)

DESCRIPTORS: Apple Newton; Clip Art; Data **Communications**; Graphics Tools  
; Handhelds & Palmtops; IBM PC & Compatibles; Mobile Computing; Mouse  
Alternatives; Office Automation; Office Suites; Pen Software; Pen  
Windows; Spreadsheets; Word Processing

REVISION DATE: 19990630



25/5/25

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00067800

DOCUMENT TYPE: Review

PRODUCT NAMES: Telescript (440647); MagicCap (444464)

TITLE: General Magic's Agents: A More Flexible EDI

AUTHOR: Davis, Arnold

SOURCE: Datamation, v40 n16 p51(2) Aug 15, 1994

ISSN: 0011-6963

HOME PAGE: <http://www.datamation.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

The software underlying the coming generation of personal intelligent **communicators** may also change the way data is exchanged across networks. General Magic's Telescript, the technology underlying the company's Magic Cap operating environment, will be shipping on several intelligent **communicators**. Once Telescript is installed on a target server, users can **send** agent-programs to the server from the handheld device or a desktop machine. Although Telescript **sends** only small agents, the system is powerful because of the capabilities of the server-based Telescript system. In Telescript's remote programming approach, the **client sends** an **object** that the server then executes. It is not necessary for the agent to contain the underlying code to perform the task. Telescript has the potential to be used in EDI, since it can allow interchange of data with computers from any organization.

COMPANY NAME: General Magic (554413)

SPECIAL FEATURE: Screen Layouts

DESCRIPTORS: **Client** /server; Laptops; **Mobile** Computing; Network  
Software

REVISION DATE: 20010730

Set	Items	Descript
S1	2132374	TARGET? OR OBJECT? OR GOAL? OR DESTINATION?
S2	8179140	DEVICE? OR CLIENT? OR NODE? OR TERMINAL OR PROCESSOR? OR - MICROPROCESSOR? OR COMPUTER? OR MICROCOMPUTER? OR UNIT? OR INSTRUMENT?
S3	49989	(WIRELESS OR WIRE()LESS OR MOBILE OR PORTABLE OR CELLULAR - OR CELL OR IN()RANGE OR INRANGE) (2N) (DEVICE? OR CLIENT? OR NODE? OR COMPUTER? OR TERMINAL)
S4	662528	STORE OR STORING OR SAVE OR SAVING OR KEEP OR KEEPING OR P-RESERV?
S5	6406445	PART? OR BLOCK? OR CHUNK? OR SEGMENT? OR PIECE?
S6	669509	VERSION? OR EDITION? OR RELEASE?
S7	6754835	FILE? OR DATA OR INFORMATION OR RECORD?
S8	2955683	COMMUNICAT? OR TRANSMIT? OR SEND? OR PASS() (ON OR ALONG OR OVER) OR CONVEY? OR TRANSFER?
S9	8257517	UPDATE? OR UP() (DATE? ? OR GRAD?) OR CURRENT OR CHANGE? OR MODIF? OR REVIS? OR REVAMP? OR UPGRAD? OR NEW
S10	3451994	DOWNLOAD? OR UPLOAD? OR (DOWN OR UP) ()LOAD? OR READ? OR TRANSFER? OR TRANSMISSION OR TRANSMIT? OR DELIVER? OR SEND? OR -WRITE? OR WRITING
S11	3245435	MULTIPLE OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL
S12	4936248	SELECT? ? OR PICK? ? OR CHOOS? OR DECID? OR SPECIF? OR DESIGNAT? OR DETERMIN?
S13	34505	(LEAST OR SMALLEST OR MINIMAL OR MINIMUM OR LITTLEST) (2N) (-TIME OR PERIOD? OR INTERVAL? OR DURATION OR FREQUENCY)
S14	24	S3 AND S4 AND (S5 (3N) S7)
S15	208	S3 AND S8 AND (S1 (2N) S2)
S16	656	S10 AND (S9 (3N) S6 (3N) S7)
S17	352	S11 (3N) S9 (3N) S6 (3N) S7
S18	279	S12 AND S13 AND S6
S19	0	S14 AND S15
S20	0	S14 AND S16
S21	0	S14 AND S17
S22	0	S14 AND S18
S23	0	S17 AND S18
S24	1096227	S9 AND S11
S25	9424	S12 AND S13
S26	674	S24 AND S25
S27	2	S26 AND S3
S28	130	S26 AND S10
S29	0	S28 AND S3
S30	0	S14 AND (S1 (2N) S2)
S31	0	S15 AND S16
S32	0	S15 AND S17
S33	0	S15 AND S18
S34	4	S14 AND S24
S35	26	S15 AND S24
S36	171	S16 AND S24
S37	352	S17 AND S24
S38	35	S18 AND S24
S39	569	S14 OR S27 OR S34 OR S35 OR S36 OR S37 OR S38
S40	57	S39 AND S3
S41	49	S40 NOT PY>2001
S42	49	S41 NOT PD>20010801
S43	39	RD (unique items)
File	8: Ei Compendex(R) 1970-2003/Dec W3	(c) 2003 Elsevier Eng. Info. Inc.
File	35: Dissertation Abs Online 1861-2003/Nov	(c) 2003 ProQuest Info&Learning
File	103: Energy SciTec 1974-2003/Dec B1	(c) 2003 Contains copyrighted material
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(c) 2003 EBSCO Pub.  
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(c) 2003 The HW Wilson Co.  
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43/5/1 (Item 1 from file: 8)  
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06620634 E.I. No: EIP03477738410

**Title: Efficiently synchronizing multidimensional schema data**

Author: Schlesinger, L.; Bauer, A.; Lehner, W.; Ediberidze, G.; Gutzmann, M.

Corporate Source: Department of Database Systems Univ. of Erlangen-Nuremberg, 91058 Erlangen, Germany

Conference Title: DOLAP 2001: ACM Fourth International Workshop on Data Warehousing and OLAP: in conjunction with the Tenth International Conference on Information and Knowledge Management (CIKM 2001)

Conference Location: Atlanta, GA, United States Conference Date: 20011109-20011109

Sponsor: ACM; SIGIR; SIGMIS

E.I. Conference No.: 61760

Source: ACM International Workshop on Data Warehousing and OLAP (DOLAP) 2001. p 69-76

Publication Year: 2001

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 0312W1

Abstract: Most existing concepts in data warehousing provide a central database system **storing** gathered raw data and redundantly computed materialized views. While in **current** system architectures client tools are sending queries to a central data warehouse system and are only used to graphically present the result, the steady rise in power of personal computers and the expansion of network bandwidth makes it possible to **store** replicated **parts** of the **data** warehouse at the client thus **saving** network bandwidth and utilizing local computing power. Within such a scenario a - potentially **mobile** - **client** does not need to be connected to a central server while performing local analyses. Although this scenario seems attractive, **several** problems arise by introducing such an architecture: For example schema data could be **changed** or **new** fact data could be available. This paper is focusing on the first problem and presents ideas on how **changed** schema data can be detected and efficiently synchronized between client and server exploiting the special needs and requirements of data warehousing. 19 Refs.

Descriptors: \*Data warehouses; Data storage equipment; Client server computer systems; Computational methods; Computer architecture; Query languages; Computer graphics; Personal computers; Bandwidth; Computer networks; Synchronization

Identifiers: Multidimensional schema data; Network bandwidth

Classification Codes:

723.3 (Database Systems); 722.1 (Data Storage, Equipment & Techniques); 722.4 (Digital Computers & Systems); 721.1 (Computer Theory (Includes Formal Logic, Automata Theory, Switching Theory & Programming Theory)); 723.5 (Computer Applications); 716.1 (Information & Communication Theory) 723 (Computer Software, Data Handling & Applications); 722 (Computer Hardware); 721 (Computer Circuits & Logic Elements); 716 (Electronic Equipment, Radar, Radio & Television) 72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATION ENGINEERING)

43/5/2 (Item 2 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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06039202 E.I. No: EIP02166920452

**Title: Proof-of-concept prototype of a Portable Wireless Battlefield Ministration Tracking System**

Author: Impson, Jeremy; Kupst, Shirley; Mehravari, Nader

Corporate Source: Advanced Technology Department Lockheed Martin Systems Integration, Owego, NY 13827, United States

Conference Title: Milcom 2001: Communications for Network-Centric

Operations: Creating the Information Force  
Conference Location: McLean, VA, United States Conference Date: 20011028-20011031  
Sponsor: IEEE  
E.I. Conference No.: 59101  
Source: Proceedings - IEEE Military Communications Conference MILCOM v 1 2001. p 550-554 (IEEE cat n 01ch37277)  
Publication Year: 2001  
CODEN: PMICET  
Language: English  
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)  
Journal Announcement: 0204W3

Abstract: To remain relevant and current with the evolution of warfare and battlefields in the 21<sup>st</sup> Century, in 1998, US Army had identified a need for an innovative approach to the delivery of the emergency ministration, pastoral care, and other battlefield religious support to the Warfighter. Through it Advanced Concepts and Technology (ACT II) program Topic Number 99-CSS-08, Army outlined the requirements to provide effective and innovative combat support services of a projection force's emergency religious operations: "to provide the Unit Ministry Team (UMT) with capability to digitally track and transmit emergency ministration and pastoral care information to a data collection point for use by casualty assistance offices and notification of next-of-kin." To respond to this requirement, in 1999, we researched and designed an architecture for a "Portable, Wireless Battlefield Ministration Tracking and Information System." Our proposed system solution provides the members of the Unit Ministry Team (UMT) and other appropriate personnel with the capability to digitally store and transmit casualty emergency ministrations and pastoral care information via hand-held and mobile wireless computing devices to a centralized data collection point. As part of this one-year research and development program, we developed a working proof-of-concept prototype of our proposed solution which was successfully demonstrated. In this paper we describe the developed prototype and the associated demonstration scenarios. 1 Refs.

Descriptors: \*Military communications; Wireless telecommunication systems ; Mobile computing; Tracking (position); Report generators; Computer networks

Identifiers: Mobile wireless computing devices

Classification Codes:

723.1.1 (Computer Programming Languages)

404.1 (Military Engineering); 716.2 (Radar Systems & Equipment); 723.1 (Computer Programming)

404 (Civil Defense & Military Engineering); 716 (Electronic Equipment, Radar, Radio & Television); 723 (Computer Software, Data Handling & Applications); 722 (Computer Hardware)

40 (CIVIL ENGINEERING, GENERAL); 71 (ELECTRONICS & COMMUNICATION ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

43/5/3 (Item 3 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

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05939728 E.I. No: EIP01466727681

Title: Recording and storing of electrical signals for diagnostics purposes

Author: Ponomaryov, V.; Badillo, L.; Fonseca, W.; Juarez, C.; Sanchez, J.; Vega, J.

Corporate Source: Inst. Politecnico Nacional ESIME Mexico, Mexico, D.F. 04430, Mexico

Conference Title: Component and Systems Diagnostics, Prognosis, and Health Management

Conference Location: Orlando, FL, United States Conference Date: 20010416-20010417

Sponsor: SPIE

E.I. Conference No.: 58666

Source: Proceedings of SPIE - The International Society for Optical

Engineering v 4389 2001. 72-80

Publication Year: 2001

CODEN: PSISDG ISSN: 0277-786X

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 0111W4

Abstract: We develop hardware and software for a long-term storage telemetry digital system. The system can be used for **storing** digitally in PCMCIA ATA flash memory card 33 analog channel data during several hours at low sample rate. The system is a portable unit powered by battery and contains 33 analog to digital converter, C/C++ programmable micro controller and PCMCIA memory. The proposed system could be reinstalled for up to 66 channels. The implemented unit is lightweight (about 1 pound). The unit records, converts, and stores the electric signals from sensors during the equipment operation. Some time after the flash memory will be downloaded at a commercial PC or a **portable computer** in a laboratory for diagnostic purposes. **Data** are stored in **blocks** of 512 bytes in PCMCIA memory (one sector). To optimize the memory available we used the compression technique based in wavelet functions. 8 Refs.

Descriptors: \*Digital storage; Computer aided diagnosis; Telemetering; Data compression; Sensors; Flash memory; High level languages; Wavelet transforms; Optimization

Identifiers: Electrical signals

Classification Codes:

723.1.1 (Computer Programming Languages)

722.1 (Data Storage, Equipment & Techniques); 461.1 (Biomedical Engineering); 723.5 (Computer Applications); 723.2 (Data Processing); 732.2 (Control Instrumentation); 723.1 (Computer Programming); 921.3 (Mathematical Transformations); 921.5 (Optimization Techniques)

722 (Computer Hardware); 461 (Bioengineering); 723 (Computer Software, Data Handling & Applications); 732 (Control Devices); 921 (Applied Mathematics)

72 (COMPUTERS & DATA PROCESSING); 46 (BIOENGINEERING); 73 (CONTROL ENGINEERING); 92 (ENGINEERING MATHEMATICS)

43/5/4 (Item 4 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05878560 E.I. No: EIP01346627933

Title: **Social tele-embodiment: Understanding presence**

Author: Paulos, E.; Canny, J.

Corporate Source: Computer Science Department University of California, Berkeley, CA 94720, United States

Source: Autonomous Robots v 11 n 1 July 2001. p 87-95

Publication Year: 2001

CODEN: AUROF2 ISSN: 0929-5593

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 0108W4

Abstract: Humans live and interact within the real world but our **current** online world neglects this. This paper explores research into Personal Roving Presence (PRoP) devices that provide a physical mobile proxy, controllable over the Internet to provide tele-embodiment. Leveraging off of its physical presence in the remote space, PRoPs provide important human verbal and non-verbal **communication** cues. The ultimate **goal** is a **computer** mediated **communication** (CMC) tool for rich natural human interaction beyond currently available systems. This paper examines PRoP design choices, system architecture, social issues, and evaluations of **several** user studies. 28 Refs.

Descriptors: \*Mobile robots; Man machine systems; Telecontrol equipment; Internet; Robotics; Telemetering systems; Cameras; Microphones; Liquid crystal displays; Servomotors; Web browsers; Computer applications

Identifiers: Social tele-embodiment; Personal Roving Presence **device** ; Physical **mobile** proxy; Human verbal **communication** ; Non-verbal **communication** ; Computer mediated **communication**

Classification Codes:

731.5 (Robotics); 731.1 (Control Systems); 732.1 (Control Equipment);  
723.1 (Computer Programming); 716.1 (Information & Communication Theory);  
742.2 (Photographic Equipment)  
731 (Automatic Control Principles & Applications); 732 (Control  
Devices); 723 (Computer Software, Data Handling & Applications); 716  
(Electronic Equipment, Radar, Radio & Television); 742 (Cameras &  
Photography)  
73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 71  
(ELECTRONICS & COMMUNICATION ENGINEERING); 74 (LIGHT & OPTICAL TECHNOLOGY)

43/5/5 (Item 5 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05837616 E.I. No: EIP01226526982

**Title: Power efficiency and latency for a semi-batch power management model in a palmtop multimedia terminal**

Author: Hu, J.R.; Bai, Y.W.

Corporate Source: Department of Electronic Engineering Fu Jen Catholic University, Taipei 242, Taiwan

Source: International Journal of Computers and Applications v 23 n 1 2001. p 10-16 202-1171

Publication Year: 2001

CODEN: IJCAFW ISSN: 1206-212X

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 0106W5

**Abstract:** Based on the analysis of the stationary non-time-varying state probability model, this paper shows the relationship between power efficiency and latency of mobile information processing under a semi-batch power management method. According to the semi-batch information processing model, the **mobile terminal** can work at the waiting state with low power consumption and in the mean time accumulate information in the terminal information queue. When the amount of accumulated information reaches a preset level, then the machine can switch to busy state and process the accumulated information. In an ideal situation, we have a potential to **save** around 70% power consumption, if we can tolerate around three times the latency of a real-time palmtop multimedia terminal. As well, a mobile user would prefer to see an entire **piece of information** instead of seeing the fragments of a picture sporadically. For these reasons, the semi-batch power management model for a palmtop multimedia terminal can be useful. 15 Refs.

**Descriptors:** \*Multimedia systems; Electric power supplies to apparatus; Hand held computers; Data processing; Real time systems; Probability; Mathematical models

**Identifiers:** Palmtop multimedia terminal; Power management model; Power consumption

Classification Codes:

723.5 (Computer Applications); 722.4 (Digital Computers & Systems);  
723.2 (Data Processing); 922.1 (Probability Theory)  
723 (Computer Software, Data Handling & Applications); 722 (Computer Hardware); 922 (Statistical Methods)  
72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

43/5/6 (Item 6 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05796695 E.I. No: EIP01025546621

**Title: Experience in teaching a graduate course in mobile computing**

Author: Gupta, S.K.S.; Srimani, P.K.

Corporate Source: Colorado State Univ, Fort Collins, CO, USA

Conference Title: 30th Annual Frontiers in Education Conference -Building on a Century of Progress in Engineering Education

Conference Location: Kansas, MO, USA  
E.I. Conference No.: 45005  
Source: Proceedings - Frontiers in Education Conference v 2 2000. IEEE, Piscataway, NJ, USA, 00CB37135. p S1C-6-S1C-11  
Publication Year: 2000  
CODEN: PFECDR ISSN: 0190-5848  
Language: English  
Document Type: CA; (Conference Article) Treatment: G; (General Review)  
Journal Announcement: 0104W1

Abstract: The need for 'information anywhere anytime' has been a driving force for the increasing growth in Web and Internet technology, wireless **communication**, and **portable** computing devices. The field of mobile computing is the merger of these advances in computing and **communication** with the aim of providing seamless and ubiquitous computing environment for mobile users. Mobile computing environments are characterized by severe resource constraints and frequent **changes** in operating conditions. This has motivated research in **many** challenging problems which span **several** areas of computer science, computer engineering and electrical engineering, such as network protocols to support mobility, efficient and adaptive resource management techniques for wireless bandwidth and battery power, predicting mobility patterns, performance modeling and simulation of mobile applications, and supporting mobile real-time multimedia applications. This paper describes the experience of the authors in designing and teaching a senior/graduate level mobile computing course at Colorado State University. This course was designed for students in computer science, electrical engineering and **computer** engineering. The **goal** was to provide an in-depth understanding of the fundamental problems in the area of mobile computing and present the existing and proposed solutions for these problems from both research and development perspectives. In addition to regular homeworks and exams, students did term projects/papers to explore topics of their interest in more depth. **Several** mid-term and end-of-semester evaluations were done to gauge student satisfaction and short-comings of the course. These evaluations were very positive. **Many** students found the breadth of the information provided in the class very stimulating. Some students mentioned that they would have liked a course textbook along with the course material. (Author abstract) 24 Refs.

Descriptors: \*Engineering education; Mobile computing; Teaching; World Wide Web; Curricula; Research and development management

Identifiers: Graduate courses

Classification Codes:

901.2 (Education); 901.3 (Engineering Research); 912.2 (Management)  
901 (Engineering Profession); 723 (Computer Software); 912 (Industrial Engineering & Management)  
90 (GENERAL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT)

43/5/7 (Item 7 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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05420840 E.I. No: EIP99114911835

Title: MODEC: A multi-granularity mobile object-oriented database caching mechanism, prototype and performance

Author: Chan, Boris Y.L.; Leong, Hong Va; Si, Antonio; Wong, Kam Fai

Corporate Source: Hong Kong Polytechnic Univ, Hung Hom, Hong Kong

Source: Distributed and Parallel Databases v 7 n 3 1999. p 343-372

Publication Year: 1999

CODEN: DAATES ISSN: 0926-8782

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 0001W2

Abstract: An inherent limitation in mobile data access is due to the unreliable and low bandwidth wireless **communication** channel. Caching of useful database items from database server in local storage of **mobile** clients is effective in reducing data access latency and wireless bandwidth consumption. In the event of disconnection, cached data can also..



serve the purpose of parallel query processing. In this paper, we present the implementation and evaluate a new caching mechanism for object-oriented database systems in a mobile environment called MODEC. MODEC possesses the capabilities of performing caching at multiple granularities and adapting to changes in data access pattern, providing improved performance through tolerating limited inconsistency to read-only transactions. This caching capabilities is supported via standard ODMG modeling constructs. The prototype of MODEC is implemented using ODE database. Empirical system performance results are obtained from experiments on the prototype with data from a real-life database. The results are validated against results obtained via detailed simulation studies on MODEC. Both sets of results are found to be consistent and are in favor of our MODEC mechanism in providing a feasible solution to the mobile data access problem under the constraints in a mobile environment. (Author abstract) 38 Refs.

Descriptors: Distributed database systems; Mobile computing; Wireless telecommunication systems; Mobile telecommunication systems; Buffer storage ; Bandwidth; Computer simulation; Object oriented programming

Identifiers: Mobile object-oriented database caching (MODEC) systems

Classification Codes:

723.3 (Database Systems); 722.1 (Data Storage, Equipment & Techniques); 716.1 (Information & Communication Theory); 723.5 (Computer Applications) 723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 722 (Computer Hardware) 72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

43/5/8 (Item 8 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05321541 E.I. No: EIP99074730600

Title: Preoperative patient assessment and data collection with a handheld computer

Author: Moenk, S.; Baldering, H.-J.; Schnaus, P.; Heinrichs, W.

Corporate Source: Johannes Gutenberg-Univ, Mainz, Ger

Source: Journal of Clinical Monitoring and Computing v 15 n 1 1999. p 65

Publication Year: 1999

CODEN: JCMCFG ISSN: 1387-1307

Language: English

Document Type: JA; (Journal Article) Treatment: A; (Applications)

Journal Announcement: 9909W2

Abstract: A mobile computer system was developed for mobile preoperative data collection. In particular, a program was written for the HP Palmtop 200 LX (HP). The resulting program is capable of storing the necessary information in a comfortable way: LIFASPAL. The system was evaluated in one surgical department. Preliminary results indicate that data collection does not require more time than with the manual system. Preoperative assessment sheets were found to be better legible and less deficient than before. 3 Refs.

Descriptors: \*Medical computing; Database systems; Patient monitoring; Hospital data processing; Operating rooms; Anesthesiology; HTML; World Wide Web; Computer software

Identifiers: Patient assessment; Data collection; Handheld computer system

Classification Codes:

723.5 (Computer Applications); 461.1 (Biomedical Engineering); 723.3 (Database Systems); 461.6 (Medicine); 462.2 (Hospitals, Equipment & Supplies) 723 (Computer Software); 461 (Biotechnology); 462 (Medical Engineering & Equipment)

72 (COMPUTERS & DATA PROCESSING); 46 (BIOENGINEERING)

43/5/9 (Item 9 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05202648 E.I. No: EIP99014529991

**Title: Ground plane detection by fusing visual and inertial information**

Author: Lobo, Jorge; Dias, Jorge

Corporate Source: Univ of Coimbra, Coimbra, Port

Conference Title: Proceedings of the 1998 5th International Workshop on Advanced Motion Control, AMC

Conference Location: Coimbra, Portugal Conference Date: 19980629-19980701

E.I. Conference No.: 49469

Source: International Workshop on Advanced Motion Control, AMC 1998. IEEE, Piscataway, NJ, USA. p 175-179

Publication Year: 1998

CODEN: 002388

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9903W1

**Abstract:** In mobile systems the position and attitude of active vision system's cameras can be hard to determine. Inertial sensors coupled to the active vision system can provide valuable information, as happens with the vestibular system in human and other animals. In this article, we present our integrated inertial and vision systems. The active vision system has a set of stereo cameras capable of vergence, with a common baseline, pan and tilt, and an implemented process of visual fixation. An inertial system prototype, based on low-cost sensors, was built. The inertial sensor data is used to **segment** the ground plane in the images. It is used to **keep** track of the gravity vector, allowing the identification of the vertical in the images. By performing visual fixation of a ground plane point, and knowing the 3D vector normal to level ground, we can determine the ground plane. The image can therefore be segmented, and the ground plane along which the robot can move identified. (Author abstract) 7 Refs.

**Descriptors:** **Computer** vision; **Mobile** robots; Cameras; Stereo vision; Sensors

**Identifiers:** Active vision system; Inertial information systems

**Classification Codes:**

741.2 (Vision); 723.5 (Computer Applications); 731.5 (Robotics); 742.2 (Photographic Equipment); 732.2 (Control Instrumentation)

741 (Optics & Optical Devices); 723 (Computer Software); 731 (Automatic Control Principles); 742 (Cameras & Photography); 732 (Control Devices)

74 (OPTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 73 (CONTROL ENGINEERING)

43/5/10 (Item 10 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05056911 E.I. No: EIP97093813059

**Title: Compact VLSI neural computer integrated with active pixel sensor for real-time ATR applications**

Author: Fang, Wai C.; Udomkesmalee, Gabriel; Alkalai, Leon

Corporate Source: Jet Propulsion Lab., Pasadena, CA, USA

Conference Title: Applications and Science of Artificial Neural Networks III

Conference Location: Orlando, FL, USA Conference Date: 19970421-19970424

Sponsor: SPIE - Int Soc for Opt Engineering, Bellingham, WA USA

E.I. Conference No.: 23059

Source: Proceedings of SPIE - The International Society for Optical Engineering v 3077 1997. Society of Photo-Optical Instrumentation Engineers, Bellingham, WA, USA. p 266-275

Publication Year: 1997

CODEN: PSISDG ISSN: 0277-786X ISBN: 0-8194-2492-7

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications)

Journal Announcement: 9809W1

Abstract: A compact VLSI neural computer integrated with an active pixel sensor has been under development to mimic what is inherent in biological vision systems. This electronic eye-brain **computer** is **targeted** for real-time machine vision applications which require both high-bandwidth **communication** and high-performance computing for data sensing, synergy of **multiple** types of sensory information, feature extraction, target detection, target recognition, and control functions. The neural computer is based on a composite structure which combines Annealing Cellular Neural Network (ACNN) and Hierarchical Self-Organization Neural Network (HSONN). The ACNN architecture is a programmable and scalable multi-dimensional array of annealing neurons which are locally connected with their local neurons. Meanwhile, the HSONN adopts a hierarchical structure with nonlinear basis functions. The ACNN plus HSONN neural computer is effectively designed to perform programmable functions for machine vision processing in all levels with its embedded host processor. It provides a two order-of-magnitude increase in computation power over the state-of-the-art microcomputer and DSP microelectronics. A compact **current**-mode VLSI design feasibility of the ACNN plus HSONN neural computer is demonstrated by a 3D 16 multiplied by 8 multiplied by 9-cube neural processor chip design in a 2- $\mu$ m CMOS technology. Integration of this neural computer as one slice of a 4' multiplied by 4' multichip module into the 3D MCM based avionics architecture for NASA's **New Millennium Program** is also described. 11 Ref.

Descriptors: \*Pattern recognition; Neural networks; VLSI circuits; Control systems; Image processing; Computer vision; Microcomputers; Microelectronics; Avionics; Multichip modules

Identifiers: VLSI neural computers; Electronic eye-brain **computers**; Annealing **cellular** neural network; Hierarchical self-organization neural network

Classification Codes:

723.4 (Artificial Intelligence); 714.2 (Semiconductor Devices & Integrated Circuits); 731.1 (Control Systems); 741.1 (Light/Optics); 722.4 (Digital Computers & Systems); 652.1 (Aircraft, General)

723 (Computer Software); 714 (Electronic Components); 731 (Automatic Control Principles); 741 (Optics & Optical Devices); 722 (Computer Hardware); 652 (Aircraft)

72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 73 (CONTROL ENGINEERING); 74 (OPTICAL TECHNOLOGY); 65 (AEROSPACE ENGINEERING)

43/5/11 (Item 11 from file: 8)  
DIALOG(R) File 8:EI Compendex(R)  
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04761057 E.I. No: EIP97073740193

Title: **Layered architecture for office delivery robots**

Author: Simmons, Reid; Goodwin, Richard; Haigh, Karen Zita; Koenig, Sven; O'Sullivan, Joseph

Corporate Source: Carnegie Mellon Univ, Pittsburgh, PA, USA

Conference Title: Proceedings of the 1997 1st International Conference on Autonomous Agents

Conference Location: Marina del Rey, CA, USA Conference Date: 19970205-19970208

Sponsor: ACM SIGART

E.I. Conference No.: 46654

Source: Proceedings of the International Conference on Autonomous Agents 1997. ACM, New York, NY, USA. p 245-252

Publication Year: 1997

CODEN: 002624

Language: English

Document Type: CA; (Conference Article) Treatment: G; (General Review)

Journal Announcement: 9709W2

Abstract: Office **delivery** robots have to perform **many** tasks. They have to determine the order in which to visit offices, plan paths to those offices, follow paths reliably, and avoid static and dynamic obstacles in the process. Reliability and efficiency are key issues in the design of

such autonomous robot systems. They must deal reliably with noisy sensors and actuators and with incomplete knowledge of the environment. They must also act efficiently, in real time, to deal with dynamic situations. Our architecture is composed of four abstraction layers: obstacle avoidance, navigation, path planning, and task scheduling. The layers are independent, communicating processes that are always active, processing sensory data and status information to update their decisions and actions. A version of our robot architecture has been in nearly daily use in our building since December 1995. As of July 1996, the robot has traveled more than 75 kilometers in service of over 1800 navigation requests that were specified using our World Wide Web interface. (Author abstract) 26 Refs.

Descriptors: Mobile robots; Computer architecture; Reliability; Sensors; Actuators; Artificial intelligence; Wide area networks; User interfaces; Office automation

Identifiers: Office delivery robots

Classification Codes:

731.5 (Robotics); 913.3 (Quality Assurance & Control); 732.2 (Control Instrumentation); 732.1 (Control Equipment); 723.4 (Artificial Intelligence)

731 (Automatic Control Principles); 723 (Computer Software); 913 (Production Planning & Control); 732 (Control Devices)

73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT)

43/5/12 (Item 12 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04733115 E.I. No: EIP97073707974

Title: Thermal modeling of high performance packages in portable computers

Author: Viswanath, Ram; Ali, Ihab A.

Corporate Source: Intel Corp, Chandler, AZ, USA

Source: IEEE Transactions on Components, Packaging, and Manufacturing Technology Part A v 20 n 2 Jun 1997. p 230-240

Publication Year: 1997

CODEN: IMTAEZ ISSN: 1070-9886

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical); X; (Experimental)

Journal Announcement: 9708W3

Abstract: An experimental and numerical study was conducted to determine the thermal performance of the Pentium Processor in a tape carrier package (TCP) operating inside a typical portable computer. The objective of this study is to develop a validated system level model of the portable environment and demonstrate that equipment designers can carry out design iterations of possible heat transfer configurations to analyze cost, performance, and manufacturability tradeoffs. A detailed three-dimensional (3-D) numerical model of the package was constructed using a computational fluid dynamic software. In the interest of keeping the computational model tractable, some simplifying assumptions were employed to obtain equivalent compact models of the various components in the computer. The fluid motion is essentially a buoyancy driven convection inside an enclosure with multiple discrete heat sources. An experimental study was conducted to validate the numerical model. The results obtained indicate that the model is in good agreement with the experimental data, both qualitatively and quantitatively. Subsequent design iterations were conducted and thermal performance limits were established for various package families. The validated model was used to investigate design modifications to improve thermal performance through increased printed circuit board (PCB) thermal conductivity and the inclusion of heat spreaders, heat pipes, and vented enclosures. (Author abstract) 15 Refs.

Descriptors: \*Microprocessor chips; Natural convection; Computational fluid dynamics; Numerical methods; Printed circuit boards; Computer simulation

Identifiers: Thermal modeling; Thermal management; Tape carrier package

(TCP)

Classification Codes:

714.2 (Semiconductor Devices & Integrated Circuits); 641.2 (Heat Transfer); 723.5 (Computer Applications); 931.1 (Mechanics)  
714 (Electronic Components); 721 (Computer Circuits & Logic Elements); 722 (Computer Hardware); 641 (Heat & Thermodynamics); 723 (Computer Software); 931 (Applied Physics)  
71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING); 64 (HEAT & THERMODYNAMICS); 93 (ENGINEERING PHYSICS)

43/5/13 (Item 13 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04640761 E.I. No: EIP97033546098

**Title: Knowledge sharing among multiple autonomous mobile robots through indirect communication using intelligent data carriers**

Author: Fujii, Teruo; Asama, Hajime; Fujita, Takanori; Asakawa, Yuji; Kaetsu, Hayato; Matsumoto, Akihiro; Endo, Isao  
Corporate Source: Inst of Physical and Chemical Research (RIKEN), Saitama, Jpn

Conference Title: Proceedings of the 1996 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS. Part 3 (of 3)

Conference Location: Osaka, Jpn Conference Date: 19961104-19961108

Sponsor: IEEE; RSJ

E.I. Conference No.: 46119

Source: IEEE International Conference on Intelligent Robots and Systems v 3 1996. IEEE, Piscataway, NJ, USA, 96CH35908. p 1466-1471

Publication Year: 1996

CODEN: 85RBAH

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications); X; (Experimental)

Journal Announcement: 9704W4

**Abstract:** This paper proposes a new strategy for knowledge sharing among multiple autonomous mobile robots using newly developed Intelligent Data Carriers (IDCs) to make the multi-robot system more flexible and robust against complex environmental conditions and, to reduce the amount of global communication for mutual exchange of information which is useful locally in a limited area. The IDC is an immobile but portable device (data carrier) for information storage and management with a unique mushroom-like structure to be easily handled by a forklift mechanism which can be mounted on actual mobile robots. A robot can place a unit at a specific location in its working environment and write locally relevant knowledge into the unit. Other robots can share the knowledge which should indicate the existence of specific instruments, objects or topographies, e.g., dead ends, drop-offs, steps, etc., by reading from the placed IDC units. The handling method of the IDC unit is examined through the experiment using an omni-directional mobile robot. It is shown that the robot succeeded in placing the unit at an appropriate location to share the information indicating that a dead end exists. (Author abstract) 8 Refs.

**Descriptors:** \*Mobile robots; Knowledge based systems; Data storage equipment; Information management; Robustness (control systems); Distributed computer systems

**Identifiers:** Omnidirectional mobile robots; Intelligent data carriers; Distributed autonomous robotic systems; Multirobot systems; Forklift mechanisms

Classification Codes:

723.4.1 (Expert Systems)  
731.5 (Robotics); 723.4 (Artificial Intelligence); 722.1 (Data Storage, Equipment & Techniques); 723.2 (Data Processing); 731.1 (Control Systems); 722.4 (Digital Computers & Systems)  
731 (Automatic Control Principles); 723 (Computer Software); 722 (Computer Hardware)  
73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

43/5/14 (Item 14 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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04496264 E.I. No: EIP96093329712

**Title: Physical layer design alternatives for outdoor high speed wireless local area network**

Author: Trabelsi, Chokri; Torun, Erdal

Corporate Source: Communications Research Cent, Ottawa, Ont, Can

Conference Title: Proceedings of the 1996 IEEE International Conference on Communications, ICC'96. Part 2 (of 3)

Conference Location: Dallas, TX, USA Conference Date: 19960623-19960627

Sponsor: IEEE

E.I. Conference No.: 45274

Source: IEEE International Conference on Communications v 2 1996. IEEE, Piscataway, NJ, USA, 96CB35916. p 857-861

Publication Year: 1996

CODEN: 002115

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9611W1

Abstract: In the last few years, the development of wireless local area networks (WLANs) has become a major goal in the computer and wireless communications field. The Network Technologies Research group at the Communications Research Centre (CRC) in Canada is working on a project to develop a high speed outdoor WLAN. In contrast to many existing WLANs, the new WLAN supports multimedia traffic such as voice, data and video; and will be used mainly in outdoor environment with a range of 20 to 30 km. In this paper the physical layer design alternatives for the WLAN with a speed of 10 to 20 Mbps are described. Simulation results for some of the proposed techniques to be used for the WLAN system are presented. (Author abstract) 10 Refs.

Descriptors: Local area networks; Radio communication ; Voice/data communication systems; Telecommunication traffic; Computer simulation; Electric network topology; Communication channels (information theory); Fading (radio); Intersymbol interference; Bit error rate

Identifiers: Wireless communications ; Multimedia traffic; Frequency band; Quadrature amplitude modulation.

Classification Codes:

716.3 (Radio Systems & Equipment); 716.1 (Information & Communication Theory); 723.5 (Computer Applications); 723.1 (Computer Programming); 921.6 (Numerical Methods)

716 (Radar, Radio & TV Electronic Equipment); 723 (Computer Software); 921 (Applied Mathematics)

71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

43/5/15 (Item 15 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
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04278700 E.I. No: EIP95102904861

**Title: Improving software process to implement a wireless mobile network**

Author: Gibson, Kimberly A.

Corporate Source: Motorola Government and Space Technology Group, Scottsdale, AZ, USA

Conference Title: Proceedings of the 19th Annual International Computer Software and Applications Conference COMPSAC '95

Conference Location: Dallas, TX, USA Conference Date: 19950809-19950811

Sponsor: IEEE

E.I. Conference No.: 43840

Source: Proceedings - IEEE Computer Society's International Computer Software & Applications Conference 1995. IEEE, Los Alamitos, CA, USA, 95CB35838. p 91-92

Publication Year: 1995

CODEN: PSICD2 ISSN: 0-6512

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9512W4

Abstract: Software engineering activities are performed and documented in segments with little automatic flowthrough of **information**. This **segmented** approach impedes the progress to a working understandable system. Since the best efforts fail to **keep** the documentation up-to-date as the software changes during implementation and testing, the product is difficult to maintain and impossible to understand. This manual process of software engineering must be changed to automate repetitive tasks and remove opportunities for human error. A wireless, mobile networks application is used to illustrate the improvements in the process that will lead to an effective implementation of such complicated distributed systems.

Descriptors: Software engineering; **Mobile** radio systems; **Computer** networks; Computer architecture; Knowledge based systems; Distributed computer systems; Computer software selection and evaluation; Large scale systems; Program documentation

Identifiers: Software development processes

Classification Codes:

723.4.1 (Expert Systems)

723.5 (Computer Applications); 716.3 (Radio Systems & Equipment); 722.2 (Computer Peripheral Equipment); 722.4 (Digital Computers & Systems);

723.1 (Computer Programming); 723.4 (Artificial Intelligence)

723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment);

722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

43/5/16 (Item 16 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04144568 E.I. No: EIP95042671631

Title: **Coordinating motion of cooperative mobile robots through visual observation**

Author: Marapane, Suresh B.; Holder, Martin; Trivedi, Mohan M.

Corporate Source: Univ of Tennessee - Knoxville, Knoxville, TN, USA

Conference Title: Proceedings of the 1994 IEEE International Conference on Systems, Man and Cybernetics. Part 3 (of 3)

Conference Location: San Antonio, TX, USA Conference Date: 19941002-19941005

E.I. Conference No.: 42882

Source: Proceedings of the IEEE International Conference on Systems, Man and Cybernetics v 3 1994., 94CH3571-5. p 2260-2265

Publication Year: 1994

CODEN: PICYE3

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9506W3

Abstract: In applications where **multiple** robot teams are deployed the motion of each robot must be coordinated with the rest of the robots. This paper describes the development of an integrated autonomous multi-robot system, where two heterogeneous robots exhibit coordinated conveying behavior. Coordination is accomplished without any communication but by visual observation. An active perception system uses visual servoing to track the leading vehicle to **determine** it's heading and relative distance. A fuzzy logic based real-time motion controller uses the heading to control the steering and relative distance and velocity information to adjust the speed to let the trailing robot smoothly follow the leader. A novel correlation algorithm based on Minimum Noise and Correlation Energy (MINACE) filter is used for object tracking. The MINACE based tracker is adaptive and when the tracking degrades due to the **change** in appearance of the leading robot a **new** filter is synthesized on line to replace the old one. The performance and robustness of the conveying system has been verified in a series of extensive laboratory trials. (Author abstract) 20

Refs.

Descriptors: **Mobile** robots; **Computer** vision; Fuzzy sets; Motion control; Steering; Velocity; Speed; Algorithms; Correlation methods; Adaptive control systems

Identifiers: Coordinating motion; Visual observation; Fuzzy logic based real **time** motion controller; **Minimum** noise and correlation energy

Classification Codes:

731.5 (Robotics); 723.5 (Computer Applications); 921.4 (Combinatorial Mathematics, Includes Graph Theory, Set Theory); 731.3 (Specific Variables Control); 723.1 (Computer Programming); 922.2 (Mathematical Statistics)

731 (Automatic Control Principles); 723 (Computer Software); 921 (Applied Mathematics); 922 (Statistical Methods)

73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

43/5/17 (Item 17 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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03600907 E.I. Monthly No: EI9305064934

**Title: High-accuracy wavefront tracing traveltime calculation.**

Author: Coultrip, Robert L.

Corporate Source: Univ of California, Irvine, CA, USA

Source: Geophysics v 58 n 2 Feb 1993 p 284-292

Publication Year: 1993

CODEN: GPYSA7 ISSN: 0016-8033

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 9305

Abstract: Conventional ray-tracing algorithms for first-arrival calculation suffer from drawbacks such as (1) no guarantee of finding the globally minimum traveltime path when **multiple** paths exist, (2) shadow zones, and (3) trouble finding minimum traveltime paths containing refraction and/or diffraction energy. Algorithms that trace wavefronts circumvent these problems. A **new** wavefront-tracing algorithm is presented which is based on an earth model consisting of uniform-velocity triangular cells with nodes placed at vertices and along **cell** edges. **Nodes** are places where traces of first arrival wavefronts (propagation directions and arrival times) are stored. The algorithm works by propagating wavefronts (sampled at the nodes) away from the source throughout the entire model. Wavefronts are propagated locally as diffraction, direct arrival, or critically refracted energy that implicitly describe **minimum time** paths. Once the first arrival wavefront is sampled throughout the model, traveltimes and raypaths from the source to receivers are easily calculated. This algorithm computes the globally **minimum time** paths from the source to all points in the model regardless of model complexity and the number of locally minimum traveltime paths. Traveltime calculations are highly accurate and computation time is  $O(n \log^2 n)$  for  $n$  nodes. Use of triangular cells allows for cell boundaries that follow, say, fault planes and dipping beds, without resorting to stair-step approximations inherent with rectangular cells. This method can be extended to three-dimensional problems. (Author abstract) 12 Refs.

Descriptors: \*PETROLEUM PROSPECTING; SEISMIC PROSPECTING; ACOUSTIC WAVE VELOCITY; DATA PROCESSING; GEOMETRICAL OPTICS; ALGORITHMS; MATHEMATICAL MODELS

Identifiers: SEISMIC WAVE TRAVELTIME MODELING; SEISMIC WAVEFRONT TRACING ALGORITHMS; MINIMUM TRAVELTIME PATH **DETERMINATION**; TRIANGULAR CELL EARTH MODELS; UNIFORM-VELOCITY TRIANGULAR CELLS; FORWARD MODELING METHODS

Classification Codes:

512 (Petroleum & Related Deposits); 481 (Geology & Geophysics); 751 (Acoustics); 723 (Computer Software); 921 (Applied Mathematics)

51 (PETROLEUM ENGINEERING); 48 (ENGINEERING GEOLOGY); 75 (ACOUSTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)



43/5/18 (Item 1 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01847793 ORDER NO: AADAA-I3022567

**Design and power optimization techniques of CMOS baseband circuits for wideband wireless applications**

Author: Shi, Chunlei  
Degree: Ph.D.  
Year: 2001  
Corporate Source/Institution: The Ohio State University (0168)  
Adviser: Mohammed Ismail  
Source: VOLUME 62/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 3744. 155 PAGES  
Descriptors: ENGINEERING, ELECTRONICS AND ELECTRICAL  
Descriptor Codes: 0544  
ISBN: 0-493-34209-5

The wireless **communication** market has been experiencing tremendous growth and will continue to do so in the next decade. It leads to a high demand for low-power, low-cost, small form factor **devices**. The **objective** of this work is to investigate **new** circuit techniques to design low-power/low-voltage CMOS analog/mixed-signal baseband circuits (data converters, filters, etc) for various wireless applications such as WCDMA, WLAN, Bluetooth, HomeRF, etc.

Reducing power dissipation associated with high speed sampling and quantization is a major problem in A/D converter (ADC) design. **Several** power optimization techniques used in pipeline ADCs are first analyzed, then a novel technique named dynamic biasing is proposed. An experimental prototype ADC for WLAN (DSSS)/WCDMA direct conversion receivers was designed and fabricated in a  $0.5\mu\text{m}$  CMOS technology. This technique can also be applied to other receiver/ADC architectures.

A novel technique to improve the intrinsic matching of resistor-string D/A converters (DACs) without trimming or calibration is proposed. This technique is demonstrated in the design of a high-resolution control DAC for 3G (UTMS) transceivers.

Low voltage operation is another important key factor in these **portable devices**. Based on the study of low voltage circuit design techniques, a **modified** switched-opamp technique suitable for system-on-chip design is proposed. The major novelty and improvement is that it increases the maximum sampling frequency, and employs a novel input stage. A 1.5V 8-bit 20MS/s pipeline ADC was designed and implemented in a  $0.18\mu\text{m}$  CMOS technology for Bluetooth/WLAN (FHSS)/HomeRF applications.

In modern wideband receivers, the analog filter often consumes a large portion of power. Therefore, the design of low-power high-speed active filters will have a significant contribution to the power savings of the entire receiver. A novel fully-differential active filter architecture is developed. It employs only a single active component (DDA) to implement a second-order Sallen-Key filter. A fifth-order low-pass filter was designed and fabricated in a  $0.5\mu\text{m}$  CMOS technology. This filter exhibits high speed, high linearity, low noise and low power.

43/5/19 (Item 2 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01843176 ORDER NO: AADAA-I3022789

**Routing in the Internet using partial link state information**

Author: Spohn, Marcelo  
Degree: Ph.D.  
Year: 2001  
Corporate Source/Institution: University of California, Santa Cruz (0036)  
Chair: J. J. Garcia-Luna-Aceves  
Source: VOLUME 62/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3277. 1 PAGES  
Descriptors: COMPUTER SCIENCE  
Descriptor Codes: 0984  
ISBN: 0-493-33655-9

This thesis focuses on routing in wired and wireless segments of the Internet using **partial link-state information**. Although efficient algorithms have been proposed based on both link-state and distance-vector information, link-state routing is more efficient than distance-vector routing when constraints are placed on the paths offered to destinations, which is the case for QoS routing offering paths with required delay, bandwidth, reliability, cost, or other parameters.

We present a new link-state routing protocol for wired internetworks called ALP (adaptive link-state protocol). In ALP, a router sends updates to its neighbors regarding the links in its preferred paths to destinations. Each router decides which links to report to its neighbors based on its local computation of preferred paths. A router running ALP does not ask its neighbors to delete links; instead, a router simply updates its neighbors with the most recent information about those links it decides to take out of its preferred paths.

We introduce and analyze two routing algorithms for wireless networks: the source-tree adaptive routing (STAR) protocol, and the neighborhood-aware source routing (NSR) protocol. STAR is the first example of a table-driven routing protocol that is more efficient than prior table-driven and on-demand routing protocols by exploiting link-state information to allow paths taken to destinations to deviate from the optimum in order to **save** bandwidth without creating loops. NSR is an on-demand routing protocol based on **partial topology information** and source routing. STAR is shown to be more efficient than the dynamic source routing (DSR) protocol in small ad hoc networks, and NSR is shown to outperform STAR and DSR in large wireless networks with **mobile nodes**.

43/5/20 (Item 3 from file: 35)  
DIALOG(R) File 35:Dissertation Abs Online  
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01598818 ORDER NO: AAD98-00728  
**MAINTAINING CONSISTENCY IN MOBILE SYSTEMS (ASYMMETRIC CHANNELS, MOBILE COMPUTING, CACHE CONSISTENCY, DISTRIBUTED SYSTEMS)**  
Author: GURIJALA, ANIL KUMAR REDDY  
Degree: PH.D.  
Year: 1997  
Corporate Source/Institution: TEXAS A&M UNIVERSITY (0803)  
Chair: UDO W. POOCH  
Source: VOLUME 58/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 3820. 88 PAGES  
Descriptors: ENGINEERING, ELECTRONICS AND ELECTRICAL  
Descriptor Codes: 0544

In the client-server based systems, data is cached at clients to improve the performance. When data items are **updated** at the server, inconsistency arises among these copies. Maintaining consistency is one of the major issues in these systems. This problem is more complicated in mobile systems because of the low bandwidth and asymmetric wireless channels, and the mobile and resource poor **clients**. The **objective** of this research is to study various issues associated with maintaining consistency in the mobile systems.

In some applications, the wireless channels are treated as one-way broadcast channels to improve the scalability. In these channels, the clients do not **send** requests to the server. The server continuously broadcasts the data over the channel. The clients listen to the channel and access the required data whenever it is broadcast. To improve the performance, the clients cache data. Consistency problems arise when the data is **updated** at the server. Two schemes, immediate propagation scheme and invalidation scheme, are used in the traditional systems. The performance of these schemes in the one-way broadcast channels is analyzed.

Many other issues arise while using these schemes this environment. Some of these issues, like missing updates, effect on the tuning time and tolerating communication errors, are discussed.

The mobility of clients is another parameter that affects consistency and performance in distributed systems. In distributed systems, data is often replicated at multiple servers. Data copies at these servers are periodically synchronized to reduce the communication overhead. But, in a mobile system, a client often moves from place to place. If the servers are not in consistent state, it has to access from the previous server, which incurs a high communication cost. An optimal period of synchronization which depends on the mobility rate of clients is calculated. Similarly, various schemes that are used to improve the data access time of a mobile client are analyzed.

43/5/21 (Item 4 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

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01439526 ORDER NO: AADAA-I9533659

**A SYSTEM ARCHITECTURE FOR CONTEXT-AWARE MOBILE COMPUTING (PDA)**

Author: SCHILIT, WILLIAM NOAH

Degree: PH.D.

Year: 1995

Corporate Source/Institution: COLUMBIA UNIVERSITY (0054)

Sponsor: DANIEL DUCHAMP

Source: VOLUME 56/06-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3300. 144 PAGES

Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

Computer applications traditionally expect a static execution environment. However, this precondition is generally not possible for mobile systems, where the world around an application is constantly changing. This thesis explores how to support and also exploit the dynamic configurations and social settings characteristic of mobile systems. More specifically, it advances the following goals: (1) enabling seamless interaction across devices; (2) creating physical spaces that are responsive to users; and (3) and building applications that are aware of the context of their use. Examples of these goals are: continuing in your office a program started at home; using a PDA to control someone else's windowing UI; automatically canceling phone forwarding upon return to your office; having an airport overhead-display highlight the flight information viewers are likely to be interested in; easily locating and using the nearest printer or fax machine; and automatically turning off a PDA's audible e-mail notification when in a meeting.

The contribution of this thesis is an architecture to support context-aware computing; that is, application adaptation triggered by such things as the location of use, the collection of nearby people, the presence of accessible devices and other kinds of objects, as well as changes to all these things over time. Three key issues are addressed: (1) the information needs of applications, (2) where applications get various pieces of information and (3) how information can be efficiently distributed.

A dynamic environment communication model is introduced as a general mechanism for quickly and efficiently learning about changes occurring in the environment in a fault tolerant manner. For purposes of scalability, multiple dynamic environment servers store user, device, and, for each geographic region, context information. In order to efficiently disseminate information from these components to applications, a dynamic collection of multicast groups is employed. The thesis also describes a demonstration system based on the Xerox PARCTAB, a wireless palmtop computer.

43/5/22 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

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7644901 INSPEC Abstract Number: B2003-07-6210L-053, C2003-07-5620L-010  
**Title: Forwarding data bases and ad-hoc routing techniques for nested clusters of wireless LANs**  
 Author(s): Elhakeern, A.K.; Ali, S.M.; Aquil, F.; Zhening Li; Zaidi, S.R.A.  
 Author Affiliation: Dept. of Electr. & Comput. Eng., Concordia Univ., Montreal, Que., Canada  
 Conference Title: Wireless 2001. 13th International Conference on Wireless Communications. Proceedings Part vol.1 p.161-78 vol.1  
 Publisher: TRILabs/Univ. Calgary, Calgary, Alta., Canada  
 Publication Date: 2001 Country of Publication: Canada 2 vol.641 pp.  
 Material Identity Number: XX-2003-01706  
 Conference Title: Wireless 2001. 13th International Conference on Wireless Communications. Proceedings  
 Conference Date: 9-11 July 2001 Conference Location: Calgary, Alta., Canada  
 Language: English Document Type: Conference Paper (PA)  
 Treatment: Theoretical (T); Experimental (X)  
 Abstract: There have been growing interest in providing mobile users traversing nested wireless LANs with free roaming and minimum call blocking. Existing IEEE 802.11 based wireless LANs have minimal capabilities when it comes providing wireless connectivity among neighboring wireless LANs segments. **Many** such LANs segments may be interconnected by means of a terrestrial Ethernet or other networks utilizing the standard access point mode of operation (AP). However, such connectivity is lacking within the IEEE 802.11 ad-hoc mode. In the later users establish peer-to-peer **communications** without seeking the help of a central station (AP). One can envision that the distributed ad-hoc mode will be adopted by the multivendor multidesign based deployment of such nested LANs. This will make the need for efficient routing of users messages by wireless means even greater. For mobile users, faster roaming, between the microcells of the nested wireless LANs should lead to devising **new** routing techniques to withstand the deep fading, and propagation path losses in the GHz regions where these LANs operate. We introduce and evaluate the performance of a **new** GPS based adaptive routing technique. The **new** routing technique uses the GPS location and timing information assumed available at all **wireless nodes** for minimizing the number or wireless segments and the number of duplicate messages a certain TPDU faces and generates enroute to the **destination node**. Miscellaneous dynamic scenarios involving users mobilities, fading, congestion and multi media traffic variations are considered. Accurate GPS timing and location information could be also substituted by other terrestrial means, and for both cases we investigate the performance of other routing techniques where some of this information is missing. We also present simulation results of a limited flooding technique that does not require GPS information. (19 Refs)  
 Subfile: B C  
 Descriptors: ad hoc networks; database management systems; Global Positioning System; IEEE standards; land mobile radio; performance evaluation; telecommunication network routing; telecommunication standards; telecommunication traffic; wireless LAN  
 Identifiers: forwarding data bases; ad-hoc routing; nested WLAN clusters; IEEE 802.11 wireless LAN; nested wireless LAN; terrestrial Ethernet; access point mode of operation; IEEE 802.11 ad-hoc mode; peer-to-peer **communications**; distributed ad-hoc mode; mobile users; roaming; microcells; deep fading; propagation path loss; performance evaluation; GPS based adaptive routing; GPS location information; GPS timing information; **wireless nodes**; fading; congestion; multimedia traffic variations; simulation results; limited flooding technique; TPDU  
 Class Codes: B6210L (Computer communications); B6250F (Mobile radio systems); B6250G (Satellite communication systems); B6330 (Radionavigation and direction finding); B6150P (Communication network design, planning and routing); C5620L (Local area networks); C5670 (Network performance)  
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43/5/23 (Item 2 from file: 2)

DIALOG(R) File 2:INSPEC

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7026971 INSPEC Abstract Number: B2001-10-6150M-094, C2001-10-5640-065

**Title: Urban community information system using simple infrared broadcasting telecommunication protocol**

Author(s): Ichioka, Y.; Aoki, T.; Yasuda, H.

Author Affiliation: Res. Center for Adv. Sci. & Technol., Tokyo Univ., Japan

Journal: Transactions of the Institute of Electronics, Information and Communication Engineers B vol. J84-B, no. 7 p. 1299-310

Publisher: Inst. Electron. Inf. & Commun. Eng,

Publication Date: July 2001 Country of Publication: Japan

CODEN: DJTBEU ISSN: 0913-5715

SICI: 0913-5715(200107)J84B:7L:1299:UCIS;1-4

Material Identity Number: K839-2001-008

Language: Japanese Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: This paper proposes a **new** architecture for an information **delivery** system that can support the life and activities of people at crowded places in metropolitan areas, and addresses a simple infrared broadcasting protocol. The proposed architecture has two-hierarchical-server structure to reduce server load. Consistency against frequent **update** of **information** is kept by **version** management. Classifying distributed information into two groups: "content to show" and "content to go" makes it possible for the receiver to carry retrieved information with his/her **mobile terminal**. The implemented simple infrared broadcasting can give a solution to the congestion issue caused by **many receivers' multiple** accesses for retrieval. (19 Refs)

Subfile: B C

Descriptors: configuration management; information retrieval systems; mobile computing; optical communication; protocols; public information systems

Identifiers: urban community information system; infrared broadcasting protocol; two-hierarchical-server structure; **mobile terminal**; retrieved information

Class Codes: B6150M (Protocols); B6260 (Optical communication); C5640 (Protocols); C7250 (Information storage and retrieval); C7100 (Business and administration)

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43/5/24 (Item 3 from file: 2)

DIALOG(R) File 2:INSPEC

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7001164 INSPEC Abstract Number: B2001-09-6210L-081, C2001-09-5620W-041

**Title: Migrating to a mobile architecture**

Author(s): Hobbs, M.T.

Journal: WEB Techniques vol. 6, no. 6 p. 42-7

Publisher: CMP Media Inc,

Publication Date: June 2001 Country of Publication: USA

CODEN: WETEFA ISSN: 1086-556X

SICI: 1086-556X(200106)6:6L:42:MMA;1-V

Material Identity Number: F184-2001-005

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Now that the Internet is nearing ubiquity with its massive stores of digitized content, and now that we're simultaneously seeing explosive growth in the use of **mobile devices**, it's a natural leap to consider the convergence of the two in the form of the wireless Web. Indeed, as mobile networks improve speed and data integrity, and lower costs, it makes sense to take advantage of the rich **store** of data on the Web and make it available to anyone with a **mobile device**. It's time to get serious about letting your employees and **partners** access critical enterprise **data** anywhere, anytime. The author shows you where to start.

(0 Refs)

Subfile: B C

Descriptors: Internet; mobile computing; mobile radio

Identifiers: digitized content; **mobile devices** ; wireless Web; mobile networks; critical enterprise data

Class Codes: B6210L (Computer communications); B6250F (Mobile radio systems); C5620W (Other computer networks)

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43/5/25 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

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6946219 INSPEC Abstract Number: C2001-07-7100-034

**Title: Taking intelligence on the road [mobile GIS application]**

Author(s): Cutlip, R.

Journal: DB2 Magazine vol.6, no.2 p.24-31

Publisher: Miller Freeman,

Publication Date: 2001 Country of Publication: USA

CODEN: DBMAF5

Material Identity Number: G132-2001-002

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: Pervasive computing is about enabling access through the integration of technologies. It's about using an evolving class of intelligent and **portable devices** to enable personal and professional transactions that simplify work and home lives. Among the most important innovations is the **partnering** of geographic **information systems (GISs)** with PDAs. Today GIS technology is increasingly integrated with object/relational databases for use in data warehousing and other business intelligence (BI) efforts. You can use DB2 Spatial Extender to create GISs, a development I took advantage of in a prototype solution that uses the DB2 Everyplace database engine on a PDA using a wireless network. This solution enables two tasks often required by mobile professionals: querying against the database on the handheld device, and connecting to specialized applications through the Internet. I walk you through the solution architecture and, in the process, shed light on implementation considerations you should **keep** in mind when incorporating pervasive solutions into your business. (0 Refs)

Subfile: C

Descriptors: business data processing; geographic information systems; Internet; mobile computing; relational databases

Identifiers: pervasive computing; geographic information systems; PDAs; data warehousing; business intelligence; DB2 Spatial Extender; DB2 Everyplace database engine; wireless network; handheld device; Internet; solution architecture

Class Codes: C7100 (Business and administration); C6160S (Spatial and pictorial databases); C7210N (Information networks); C6160D (Relational databases); C7840 (Geography and cartography computing)

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43/5/26 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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6766306 INSPEC Abstract Number: B2001-01-6150M-001, C2001-01-5640-002

**Title: The implication of the next-generation wireless network design: cellular mobile IPv6**

Author(s): Han-Chieh Chao; Yen-Ming Chu; Mu-Tai Lin

Author Affiliation: Dept. of Electr. Eng., Nat. Dong Hwa Univ., Taiwan

Journal: IEEE Transactions on Consumer Electronics Conference Title: IEEE Trans. Consum. Electron. (USA) vol.46, no.3 p.656-63

Publisher: IEEE,

Publication Date: Aug. 2000 Country of Publication: USA

CODEN: ITCEDA ISSN: 0098-3063

SICI: 0098-3063(200008):3L.656:INGW;1-E  
Material Identity Number: I273-2000-003  
U.S. Copyright Clearance Center Code: 0098-3063/2000/\$10.00  
Conference Title: 2000 Digest of Technical Papers. International  
Conference on Consumer Electronics. Nineteenth in the Series  
Conference Sponsor: Consumer Electron. Soc  
Conference Date: 13-15 June 2000 Conference Location: Los Angeles, CA,  
USA  
Language: English Document Type: Conference Paper (PA); Journal Paper  
(JP)  
Treatment: Applications (A); Practical (P)  
Abstract: The initiatives to add mobility to the Internet and packet  
data services for next-generation cellular systems are being considered  
by many mobile service providers. IPv6 is a new version of the  
Internet protocol that was standardized by the Internet Engineering Task  
Force (IETF). It supports mobility and is presently being standardized by  
the IETF Mobile IP Working Group. At the same time, cellular is an  
inevitable and developing architecture for the Personal Communication  
Service system (PCS). In this paper, cellular mobile IPv6 (CMI), a new  
algorithm that is migrated from mobile IPv6 is proposed for mobile  
nodes moving among small wireless cells at high speed. It is important  
for future mobile communication environments and should eventually,  
integrate its functions with the Internet. The purpose of this paper is to  
solve the problems of a communication break within smaller cellular  
coverage during high-speed movement with packet-switched data or the  
real-time voice messages. Thus, voice over IP (VoIP) packets were chosen to  
implement the system. Simulation results show smooth and non-breaking  
handoff during high-speed movement using the proposed algorithm. (14 Refs)  
Subfile: B C  
Descriptors: cellular radio; Internet telephony; packet radio networks;  
standardisation; transport protocols  
Identifiers: cellular mobile IPv6; next-generation wireless network  
design; packet data services; cellular systems; mobile service providers;  
Internet protocol; Internet Engineering Task Force; IETF; standardization;  
Personal Communication Service system; PCS; mobile nodes; wireless  
cells; cellular coverage; high-speed movement; packet-switched data;  
real-time voice messages; voice over IP packets; VoIP packets; simulation  
results; nonbreaking handoff; smooth handoff  
Class Codes: B6150M (Protocols); B6250F (Mobile radio systems); B6210D (Telephony); B6210L (Computer communications); C5640 (Protocols); C5620W (Other computer networks)  
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43/5/27 (Item 6 from file: 2)  
DIALOG(R) File 2:INSPEC  
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6727747 INSPEC Abstract Number: B2000-11-6150M-109  
Title: On-demand QoS-based routing protocol for ad hoc mobile wireless networks  
Author(s): Ying-Kwei Ho; Ru-Sheng Liu  
Author Affiliation: Dept. of Comput. Eng. & Sci., Yuan-Ze Inst. of Technol., Chungli, Taiwan  
Conference Title: Proceedings ISCC 2000. Fifth IEEE Symposium on Computers and Communications p.560-5  
Editor(s): Tohme, S.; Ulema, M.  
Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA  
Publication Date: 2000 Country of Publication: USA xvi+808 pp.  
ISBN: 0 7695 0722 0 Material Identity Number: XX-2000-01266  
U.S. Copyright Clearance Center Code: 0 7695 0722 0/2000/\$10.00  
Conference Title: Proceedings of 5th IEEE Symposium on Computer and Communications (ISCC 2000)  
Conference Sponsor: IEEE Commun. Soc.; IEEE Comput. Soc  
Conference Date: 3-6 July 2000 Conference Location: Antibes-Juan les Pins, France  
Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical

Abstract: To explore QoS issue for ad hoc mobile wireless networks is not trivial because of the high mobility of **mobile nodes**. Based on the DSDV (destination-sequenced distance-vector) routing protocol for maintaining up-to-date route information, previous works on QoS routing for ad hoc mobile wireless networks do require adding an extra bandwidth for exchanging QoS information. However the size and the **update** frequency of the routing table are increased tremendously with the number of **mobile nodes**. We propose an on-demand-based QoS routing protocol to achieve the QoS requirement. The goal of this paper is to discover an optimal route with minimum time delay for **transmitting** real-time data from a source node hop by hop to a **destination node** under some predefined constraints. (16 Refs)

Subfile: B

Descriptors: access protocols; land mobile radio; network topology; optimisation; quality of service; radio networks; telecommunication network routing; time division **multiple** access; transport protocols

Identifiers: on-demand QoS-based routing protocol; ad hoc mobile wireless networks; **mobile nodes**; destination-sequenced distance-vector routing protocol; route information; bandwidth; QoS information exchange; **update** frequency; routing table size; optimal route; minimum time delay; real-time data transmission; source node; **destination node**; wireless network topology; TDMA; simulation environment

Class Codes: B6150M (Protocols); B6150P (Communication network design, planning and routing); B6250F (Mobile radio systems); B0260 (Optimisation techniques)

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43/5/28 (Item 7 from file: 2)

DIALOG(R) File 2:INSPEC

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6258727 INSPEC Abstract Number: B1999-07-6250F-030

**Title: A distance routing effect algorithm for mobility (DREAM)**

Author(s): Basagni, S.; Chlamtac, I.; Syrotiuk, V.R.; Woodward, B.A.

Author Affiliation: Sch. of Eng. & Comput. Sci., Texas Univ., Dallas, TX, USA

Conference Title: MobiCom'98. Proceedings of Fourth Annual ACM/IEEE International Conference on Mobile Computing and Networking p.76-84

Publisher: ACM, New York, NY, USA

Publication Date: 1998 Country of Publication: USA viii+292 pp.

ISBN: 1 58113 035 X Material Identity Number: XX-1998-02447

U.S. Copyright Clearance Center Code: 1 58113 035 X/98/10..\$5.00

Conference Title: Proceedings of MobiCom'98. Fourth Annual ACM/IEEE International Conference on Mobile Computing and Networking

Conference Sponsor: ACM; IEEE

Conference Date: 25-30 Oct. 1998 Conference Location: Dallas, TX, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: In this paper we introduce a **new** routing protocol for ad hoc networks built around two novel observations. One, called the distance effect, uses the fact that the greater the distance separating two nodes, the slower they appear to be moving with respect to each other. Accordingly, the location information in routing tables can be **updated** as a function of the distance separating nodes without compromising the routing accuracy. The second idea is that of triggering the **sending** of location **updates** by the moving nodes autonomously, based only on a node's mobility rate. Intuitively, it is clear that in a directional routing algorithm, routing information about the slower moving nodes needs to be **updated** less frequently than that about highly **mobile nodes**. In this way each node can optimize the frequency at which it **sends updates** to the networks and correspondingly reduce the bandwidth and energy used, leading to a fully distributed and self-optimizing system. Based on these routing tables, the proposed directional algorithm **sends** messages in the "recorded direction" of the **destination node**, guaranteeing delivery by following the direction with a given probability. We show by detailed



simulation that our protocol always delivers more than 80% of the data messages by following the direction computed, without using any recovery procedure. In addition, it minimizes the overhead used for maintaining routes using the two new principles of update message frequency and distance. Lastly, the algorithm is fully distributed, provides loop-free paths, and is robust, since it supplies multiple routes. (12 Refs)

Subfile: B

Descriptors: distributed algorithms; mobile radio; packet radio networks; protocols; table lookup; telecommunication network routing

Identifiers: distance routing effect algorithm for mobility; DREAM; routing protocol; ad hoc networks; location information; routing tables; mobility rate; directional routing algorithm; fully distributed self-optimizing system; destination node; recovery procedure; update message frequency; loop-free paths; multiple routes; packet radio network

Class Codes: B6250F (Mobile radio systems); B6150P (Communication network design, planning and routing); B6150M (Protocols)

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43/5/29 (Item 8 from file: 2)

DIALOG(R) File 2:INSPEC

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5616634 INSPEC Abstract Number: B9708-0170J-042, C9708-5490-001

Title: Thermal modeling of high performance packages in portable computers

Author(s): Ram Viswanath; Ali, I.A.

Author Affiliation: Intel Corp., Chandler, AZ, USA

Journal: IEEE Transactions on Components, Packaging, and Manufacturing Technology, Part A vol.20, no.2 p.230-40

Publisher: IEEE,

Publication Date: June 1997 Country of Publication: USA

CODEN: IMTAEZ ISSN: 1070-9886

SICI: 1070-9886(199706)20:2L.230:TMHP;1-8

Material Identity Number: B480-97003

U.S. Copyright Clearance Center Code: 1070-9886/97/\$10.00

Document Number: S1070-9886(97)03600-7

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Theoretical (T); Experimental (X)

Abstract: An experimental and numerical study was conducted to determine the thermal performance of the Pentium(R) Processor in a tape carrier package (TCP) operating inside a typical portable computer. The objective of this study is to develop a validated system level model of the portable environment and demonstrate that equipment designers can carry out design iterations of possible heat transfer configurations to analyze cost, performance, and manufacturability tradeoffs. A detailed three-dimensional (3-D) numerical model of the package was constructed using a computational fluid dynamic software. In the interest of keeping the computational model tractable, some simplifying assumptions were employed to obtain equivalent compact models of the various components in the computer. The fluid motion is essentially a buoyancy driven convection inside an enclosure with multiple discrete heat sources. An experimental study was conducted to validate the numerical model. The results obtained indicate that the model is in good agreement with the experimental data, both qualitatively and quantitatively. Subsequent design iterations were conducted and thermal performance limits were established for various package families. The validated model was used to investigate design modifications to improve thermal performance through increased printed circuit board (PCB) thermal conductivity and the inclusion of heat spreaders, heat pipes, and vented enclosures. (15 Refs)

Subfile: B C

Descriptors: heat pipes; integrated circuit modelling; integrated circuit packaging; iterative methods; natural convection; portable computers

Identifiers: thermal modeling; packages; portable computers; tape carrier package; system level model; design iterations; heat transfer configurations; 3D numerical model; computational fluid dynamics software; buoyancy driven convection; multiple discrete heat sources; PCB thermal

conductivity; heat spreaders; heat pipes; vented enclosures

Class Codes: B0170J (Product packaging); B0290F (Interpolation and function approximation); C5490 (Other aspects of analogue and digital computers); C4130 (Interpolation and function approximation)

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43/5/30 (Item 9 from file: 2)

DIALOG(R)File 2:INSPEC

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4814214 INSPEC Abstract Number: B9412-1265Z-007, C9412-5610P-004

**Title: Smart controllers speed data moves, trim overheads**

Author(s): Bursky, D.

Journal: Electronic Design vol.42, no.19 p.85-6, 88, 90, 94, 96, 98, 100, 102, 105-6

Publication Date: 19 Sept. 1994 Country of Publication: USA

CODEN: ELODAW ISSN: 0013-4872

U.S. Copyright Clearance Center Code: 0013-4872/94/\$2.00+1.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Product Review (R)

**Abstract:** High-capacity small-format disk drives have evolved as an essential part of every desktop and portable computer system, as well as a key building block in network file servers and high-reliability RAID (redundant array of independent disks) subsystems. However, although the disk drives are generally able to keep pace with the capacity demands, they are starting to lag behind in data-transfer rates. This performance gap is becoming quite apparent as more graphics and multimedia applications come on line. Makers of disk-controller ICs are responding to the call with new generations of chips that not only accelerate the process of data transfers, but also add new features to simplify the systems. The author discusses a number of enhanced IDE and SCSI controllers offered by various manufacturers. (0 Refs)

Subfile: B C

Descriptors: digital integrated circuits; magnetic disc storage; peripheral interfaces

Identifiers: smart controllers; small-format disk drives; network file servers; high-reliability RAID subsystems; redundant array of independent disks; high-capacity drives; data-transfer rates; disk-controller ICs; IDE controllers; SCSI controllers

Class Codes: B1265Z (Other digital circuits); C5610P (Peripheral interfaces); C5320C (Storage on moving magnetic media); C5150 (Other circuits for digital computers)

43/5/31 (Item 10 from file: 2)

DIALOG(R)File 2:INSPEC

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4540224 INSPEC Abstract Number: B9401-6210-026, C9401-7410F-049

**Title: A distributed, object-oriented communication network simulation testbed**

Author(s): Corson, M.S.

Author Affiliation: Dept. of Elecr. Eng., Maryland Univ., College Park, MD, USA

Conference Title: 1992 Winter Simulation Conference Proceedings (Cat. No.92CH3202-9) p.672-9

Publisher: IEEE, New York, NY, USA

Publication Date: 1992 Country of Publication: USA xxx+1410 pp.

ISBN: 0 7803 0798 4

Conference Sponsor: IEEE; ASA; ACM; IIE; NIST; ORSA; TIMS; SCS

Conference Date: 13-16 Dec. 1992 Conference Location: Arlington, VA, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

**Abstract:** The distributed network simulation testbed is a research tool designed to aid users in the modeling and performance analysis of

communication protocols. The testbed can be used to model communication networks consisting of mobile and/or immobile nodes communicating over broadcast and/or point-to-point channels. Its object-oriented design permits users to utilize previously developed modules and, when necessary, to derive new modules which are subsequently added to the testbed. The testbed, implemented in Sim++, can run either sequentially on a single processor or in parallel on multiple multiple processors. An object-oriented, graphical user interface allows users to monitor simulation progress for both demonstration and debugging and permits users to graphically construct network simulations from existing testbed components. (2 Refs)

Subfile: B C

Descriptors: digital simulation; distributed processing; object-oriented programming; protocols; telecommunication networks; telecommunications computing

Identifiers: mobile nodes ; broadcast channels; parallel processing; object-oriented communication network simulation testbed; distributed network simulation testbed; research tool; modeling; performance analysis; communication protocols; immobile nodes; point-to-point channels; Sim++; sequentially; single processor; multiple processors; graphical user interface; demonstration; debugging

Class Codes: B6210 (Telecommunication applications); B6150M (Protocols); C7410F (Communications); C6110J (Object-oriented programming); C6185 (Simulation techniques); C6155 (Computer communications software)

43/5/32 (Item 1 from file: 233)  
DIALOG(R) File 233:Internet & Personal Comp. Abs.  
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00633511 01PI06-132

**Working in sync**

Seymour, Jim

PC Magazine , June 26, 2001 , v20 n12 p79, 1 Page(s)

ISSN: 0888-8507

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

COMPANY LINE column discusses the need to keep the corporate data on all the intermittently connected wireless mobile devices in sync. Notes that every portable device carried by company employees, such as hand-held computers, notebook computers , and cell phones, needs to reflect the same current version of corporate information . Reports that part of the dilemma is pure database management, such as determining which of the data from two sources is the correct one and the locking of fields and records when multiple users are trying to input data into the system at the same time. Cites the need for real-time updating of the business information that users rely on. Says that for relief, some are looking to the Bluetooth standard for very short-range automatic wireless communications. Notes that vendors are taking steps to address these problems. (MEM)

Descriptors: Wireless Communication; Synchronization; Corporate Information; Mobile Computing; Information Management; Standards

43/5/33 (Item 1 from file: 94)  
DIALOG(R) File 94:JICST-Eplus  
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05044326 JICST ACCESSION NUMBER: 02A0017943 FILE SEGMENT: JICST-E  
An IP-based mobile access network taking advantages of the broadcasting functionality of PON.

YAMADA TAKAHIKO (1); LAMBERTSEN G (1)

(1) Ritsumeikan Univ., Fac. of Sci. and Eng.

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report  
(Institute of Electronics, Information and Communication Enginners),  
2001, VOL.101,NO.354(NS2001 126-133), PAGE.19-24, FIG.5, REF.4

JOURNAL NUMBER: S0532BBG  
UNIVERSAL DECIMAL CLASSIFICATION: 621.396.73 621.394/.395  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

ABSTRACT: The coming fourth generation mobile network is said to be an IP-based network to provide high speed **communications** to high-speed terminals. This paper presents an access network architecture for the fourth generation Mobile IP network taking advantages of PON (Passive Optical Network). FA (Foreign agent) situates in each centralized node where **many** OLTs (Optical Line Terminals) exist, and controls handoff in the area of 40km diameter. For the FA hand-off, an initial FA is anchored, and paths are extended to **new** FAs. In a FA, a virtual macro-cell is defined which consists of a group of neighboring micro-cells. In each virtual macro-cell, only a cell in which the **target mobile node** exists conducts IP-based wireless transmission to the **target mobile node**, though all micro-cells in the virtual macro-cell are ready to do it. The virtual macro-cell for a high-speed node is dynamically reallocated along the movement of the node. CDMA's soft handoff together with the dynamical virtual macro-cell allows continuous IP-based transportation even for a high-speed node. (author abst.)

DESCRIPTORS: cellular **communications**; internet; multi-media; local loop; optical **communication**; simultaneous transmission; interchangeability; link switching; service area; agent; traffic processing

IDENTIFIERS: call processing

BROADER DESCRIPTORS: mobile **communication**; telecommunication; computer network; **communication** network; information network; network; information media; **communication** system; method; property; link operating; **communication** operation; operation(processing); switching and changing; switching; zone; treatment

CLASSIFICATION CODE(S): ND08030H; ND11010T

43/5/34 (Item 2 from file: 94)  
DIALOG(R)File 94:JICST-Eplus  
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04277767 JICST ACCESSION NUMBER: 99A0538641 FILE SEGMENT: JICST-E  
**Nomadic Messaging System on Optimistic Data Consistency Model.**  
KURODA MASAHIRO (1); WATANABE TAKASHI (1); MIZUNO TADANORI (1); INOUE JUN (2)

(1) Shizuoka Univ., Fac. of Information; (2) Mitsubishi Electr. Corp.  
Denshi Joho Tsushin Gakkai Ronbunshi B(Transaction of the Institute of Electronics, Information and Communication Engineers B), 1999, VOL.J82-B,NO.5, PAGE.827-838, FIG.12, TBL.3, REF.15

JOURNAL NUMBER: S0622CAY ISSN NO: 1344-4697  
UNIVERSAL DECIMAL CLASSIFICATION: 681.3:654 621.396.73  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper  
MEDIA TYPE: Printed Publication

ABSTRACT: An optimistic data consistency model has been used to ensure data consistency and data utility in distributed systems. The authors proposed a **data** version management system based on the **version** vector for solving simultaneous **data** updates by multiple users and discovering **update** conflicts. This paper proposes a messaging management system based on the system and also its nomadic type system on top of it. A **mobile terminal** user connects to a messaging server, and **updates** its message of the terminal and the server with message data version management system based on the version vector. The messaging system supports the message operation in unconnected condition and the reflection of message operation in the next time for the infrastructure to ensure data consistency and utility. And efficient data **transfer** by the differential data **transfer** and user controlled synchronization are realized. In the evaluation of the

prototype system, it is able to confirm that CPU load and memory consumption is also lower, while confirming that the message update latency for securing consistency is up to practical use. Also, it can be said that the system is scalable, as the non-connection mode is effective for mobile terminal users, server connection for securing data consistency is not concentrated to one location, network occupation decreases by reducing user operation, and CPU/memory consumption for the messaging control is not significant.

DESCRIPTORS: electronic mail; message **transmission**; incommensurability; consistency(computer); mobile communication; synchronous control; data management; data **update**; system evaluation; scalability(computer

BROADER DESCRIPTORS: telecommunication; communication system; method; matching; property; control; management; renewal; evaluation; performance evaluation

CLASSIFICATION CODE(S): JC03000K; ND08030H

43/5/35 (Item 3 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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03428926 JICST ACCESSION NUMBER: 97A0742164 FILE SEGMENT: JICST-E

Mobile computer. Mobile computer "AMITY VP".

MIURA TOSHIHIRO (1); UCHIMURA MASAYUKI (1); FUKUNAGA MASATAKE (1); FURUUCHI KOJI (1)

(1) Mitsubishi Electric Corp.

Mitsubishi Denki Giho, 1997, VOL.71, NO.7, PAGE.613-618, FIG.6, TBL.1

JOURNAL NUMBER: F0198AAP ISSN NO: 0369-2302 CODEN: MTDNA

UNIVERSAL DECIMAL CLASSIFICATION: 681.325/.327

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: In recent years, due to progress of technologies to achieve small, thin, and lightweight electronic devices and high-density mounting technology, ultra-small personal computers have been commercialized and wireless **communication** equipment, such as cellular telephone and PHS, and digital cameras are rapidly penetrating. Inline with the penetration of network infrastructure, mobile computing is becoming a hot issue. However, in reality, there are not so many cases that enterprises introduce **mobile computers** for business application. Mitsubishi Electric developed and commercialized AMITY small computer equipped with excellent pen-input functions **several** years ago. Large screen and light weight are its features. Mitsubishi has constructed a system using AMITY as a small information terminal for support of sales works outside the office, customer treatment, storefront works, and maintenance works. In April 1997 Mitsubishi started sales of a **new** product AMITY VP which is expected to meet the requirements of enterprises wishing to introduce **mobile computers** for business application. Regarding application, support of sales works executed outside the office represents an overwhelmingly large proportion in the market. Therefore, **targeting a mobile computer** which is easy for sales people to use, development of AMITY VP was focused on achievement of a screen which is easy to view outdoor, robust frame, reduced cost, improved performance and improved pen input usability. Development content on each item is introduced.

DESCRIPTORS: hand-held type; personal computer; **new** product; operating system; weight reduction; liquid crystal display; contrast; electric cabinet; miniaturization; cost reduction; three dimension; CAD; microprocessor; computer

BROADER DESCRIPTORS: portable type; type; digital computer; hardware; product; system program; computer program; software; **modification**; display device; equipment; electric apparatus and parts; parts; reduction; variation; dimension; computer application; utilization; design; arithmetic processor

CLASSIFICATION CODE(S): JC04010C

43/5/36 (Item 1 from file: 99)  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
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2334526 H.W. WILSON RECORD NUMBER: BAST01042341

**Play that mobile music**

Swartz, Nikki;

Wireless Review v. 17 no22 (Nov. 15 2000) p. 40-2

DOCUMENT TYPE: Feature Article ISSN: 1099-9248 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: While **keeping** a close watch on the Napster debate, wireless-service providers are planning for the future marriage of music and wireless. Based on what is happening in Europe and Asia, it is predicted that music and gaming will be 2 of the most important applications of **wireless devices** when 3G technology finally arrives. Already ring tones and logos for mobile phones have been offered to subscribers as **part** of a **record** promotion. The new Virgin-branded Samsung SGH-M100 mobile phone combines wireless and MP3 technology.

DESCRIPTORS: Electronic music; Mobile computing;

43/5/37 (Item 1 from file: 95)  
DIALOG(R)File 95:TEME-Technology & Management  
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01485564 20010102774

**Development of an augmentative portable communication device**  
(Entwicklung eines tragbaren Verstaerkungskommunikationssystems)

Cummings, JR; Akmaloni

Univ. of North Carolina, Chapel Hill, USA

RESNA 2000, Proc. of the RESNA 2000 Annual Conf., Technology for the New Millenium, Orlando, USA, Jun 28-Jul 2, 20002000

Document type: Conference paper Language: English

Record type: Abstract

ISBN: 0-932101-42-9

ABSTRACT:

The purpose of this project design was to develop an augmentative **portable communication device** (APCD) for people who are unable to speak intelligibly. Specifically the APCD was designed to be a wearable vest with voice recording and playback capabilities. The particular APCD was specifically designed for a fifteen-year-old boy named Travis who has cerebral palsy. The battery-powered voice recorder and player unit is located in the control box on the upper back of the vest, directly below the collar. The control circuitry is enclosed in a modified commercial polystyrene box. In addition to housing the circuitry, the box also contains a 9 V battery, a microphone, a record switch, a LED indicator, activation pad connector plugs, speaker connector plug and a ON/OFF switch. The battery compartment is isolated from the main circuitry and is accessible through a latch that is held in place by a single screw. The integrated circuits inside the control box consists of a microchip audio recorder/player, a microprocessor, and an audio amplifier. The ISD ChipCorder was set to sample at 8 kHz, which gave this **particular** chip a maximum **record** length of 60 seconds. The 60-second capacity was divided into five spaces: four message spaces and a short space for a beep sound. The beep sound is activated when the record session is longer than the allocated space. The microprocessor is a stand-alone microprocessor that has non-volatile memory to **store** its program. When the APCD is initially turned on, the LED shines brightly for one second, this confirms that the circuit has proper power. The speaker box located on the outside of the vest was made with a commercial 4 Ohm round speaker. The speaker was removed from its original housing and placed in a sturdy polystyrene box. The box was modified to house a female phono connector and a strap holder for a Velcro strap that connects the speaker to the vest. Between the

Speaker and the Audio amplifier there is a commercially available volume controller containing an 800 Ohm potentiometer, which was modified to match the 4 Ohm speaker.

DESCRIPTORS: PORTABLE INSTRUMENTS; VEST; LIGHTWEIGHT DESIGN; DATA RECORDING ; ELECTRIC BATTERIES; CONTROL UNITS; POLYSTYRENE; MICROPHONES; LED DISPLAYS ; MICROPROCESSORS; COMPUTER CODES; LOUDSPEAKERS; COMMUNICATION SYSTEMS; BIOMEDICAL DEVICES  
IDENTIFIERS: Kommunikationshilfe; Mikrofon; Lautsprecher; Spracherkennung

43/5/38 (Item 1 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM)  
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06588916

LG Telecom to launch PCS Data service

SOUTH KOREA: LG TO DEBUT PCS DATA SERVICE

The Korea Herald (XBF) 19 Feb 1998 P.7

Language: ENGLISH

South Korea's LG Telecom will release a new service, the 019 PCS Data service, in March 1998 to enable its customers to send data from their notebook PCs wireless using their PCS handsets. The PCS operator will be the global first to provide wireless data service based on CDMA (code division multiple access) cellular networks. Its subscribers can access their company LAN, surf the Internet, log onto on-line services and send and receive faxes without a modem. The service's maximum data rate of 14.4 kilobits per second (kbps) is fast enough for Internet surfing. The operator will raise the data rate to 64 kbps in 1999. The carrier has made its service available to Japanese visitors to South Korea by supplying 300 handsets to its Japanese partner SGAT Co. It intends to export its handsets to telecom operators in Hong Kong and Singapore so that they can lease handsets to their customers visiting South Korea.

COMPANY: SGAT; INTERNET; LG TELECOM

PRODUCT: Laptop Computers (3573LC); Cellular Radio Services (4811CR); Telecommunications (4810); Cellular Radio Equipment (3662CE);

EVENT: Foreign Trade (64); Planning & Information (22);

COUNTRY: Singapore (9SIN); Hong Kong (9HON); Japan (9JPN); South Korea (9SOK);

43/5/39 (Item 2 from file: 583)

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US - ORACLE LAUNCHES ORACLE CARD FOR PEN WINDOWS

Computergram International (CGI) 1 May 1992 p1

ISSN: 0268-716X

Oracle (Redwood Shores, CA) has introduced Oracle Card for Pen Computing and Oracle Card 1.1 for Windows. The Pen Computing version is for now Microsoft's Windows for Pen Computing and the program is designed to enable application developers to build client-server applications using pen computers as clients. It includes the ability to store 'ink' generated by pen-based operating systems into Oracle databases. Ink is a new data type integrated into pen-based operating systems that displays the strokes of the pen and stores them as they are created by the user. It needs an 80386 pen-based computer, Microsoft Windows for Pen Computing, 4Mb of memory and an Oracle database. It will be shipped and priced in the fourth quarter. Immediately available is Oracle Card version 1.1 for Windows. The new version of the portable graphical client-server application development environment adds support for IBM's DB2 database management system, Dynamic Data Exchange with third-party Windows applications, and International Character Support. The run-time version is USD1r300 for one licence, and

USDlr2,150 for a pack of eight licences, USDlr3,950 for 16 licences, USDlr7,650 for 32, USDlr14,500 for 64, and USDlr25,500 for 128. A version for the Macintosh is planned for the third quarter.

COMPANY: ORACLE

PRODUCT: Operating Systems (7372OS); CAD/CAM Mechanical Software (COSW);

EVENT: NEW PRODUCT EXTENSION (33);

COUNTRY: United States (1USA); NATO Countries (420); South East Asia  
Treaty Organisation (913);



Set	Items	Description
S1	3972746	TARGET? OR OBJECT? OR GOAL? OR DESTINATION?
S2	15726066	DEVICE? OR CLIENT? OR NODE? OR TERMINAL OR PROCESSOR? OR - MICROPROCESSOR? OR COMPUTER? OR MICROCOMPUTER? OR UNIT? OR IN- STRUMENT?
S3	245114	(WIRELESS OR WIRE()LESS OR MOBILE OR PORTABLE OR CELLULAR - OR CELL OR IN()RANGE OR INRANGE) (2N) (DEVICE? OR CLIENT? OR NO- DE? OR COMPUTER? OR TERMINAL)
S4	3332084	STORE OR STORING OR SAVE OR SAVING OR KEEP OR KEEPING OR P- RESERV?
S5	10020761	PART? OR BLOCK? OR CHUNK? OR SEGMENT? OR PIECE?
S6	4038829	VERSION? OR EDITION? OR RELEASE?
S7	12724381	FILE? OR DATA OR INFORMATION OR RECORD?
S8	6186062	COMMUNICAT? OR TRANSMIT? OR SEND? OR PASS() (ON OR ALONG OR OVER) OR CONVEY? OR TRANSFER?
S9	225	S3 (S) S4 (S) (S5 (3N) S7)
S10	351	S3 (S) S8 (S) (S1 (2N) S2)
S11	1598284	(UPDATE? OR UP() (DATE? ? OR GRAD?) OR CURRENT OR CHANGE? OR MODIF? OR REVIS? OR REVAMP? OR UPGRAD? OR NEW) (3N) S7 (3N) S7
S12	465449	S6 (S) (MULTIPLE OR MANY OR PLURAL? OR NUMEROUS OR SEVERAL)
S13	5602201	SELECT? ? OR PICK? ? OR CHOOS? OR DECID? OR SPECIF? OR DES- IGNAT? OR DETERMIN?
S14	42628	(LEAST OR SMALLEST OR MINIMAL OR MINIMUM OR LITTLEST) (2N) (- TIME OR PERIOD? OR INTERVAL? OR DURATION OR FREQUENCY)
S15	34904	S12 (S) S11
S16	340	S13 (S) S14 (S) S6
S17	1	S9 (S) S10
S18	15	S9 (S) S15
S19	0	S9 (S) S16
S20	9	S10 (S) S15
S21	0	S10 (S) S16
S22	25	S17 OR S18 OR S20
S23	17	S22 NOT PY>2001
S24	16	S23 NOT PD>20010801
S25	15	RD (unique items)

File 15:ABI/Inform(R) 1971-2003/Dec 31  
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File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group

File 553:Wilson Bus. Abs. FullText 1982-2003/Nov  
(c) 2003 The HW Wilson Co

25/5,K/1 (Item 1 file: 647)  
DIALOG(R) File 647: CMP Computer Fulltext  
(c) 2003 CMP Media, LLC. All rts. reserv.

00605915 CMP ACCESSION NUMBER: NWC19911001S1314

**Staying in Sync, at Home and on the Road** (Helpline)

Gary Gunnerson

NETWORK COMPUTING, 1991, n 210 , 104

PUBLICATION DATE: 911001

JOURNAL CODE: NWC LANGUAGE: English

RECORD TYPE: Fulltext

SECTION HEADING: Logging Off

TEXT:

I run a calendaring application on my network, and when I go on the road with my **portable computer** I take a copy of my electronic calendar with me. While on the road I make changes to my schedule and database. Is there a way to **keep** my applications synchronized? Your question strikes at the very heart of groupware and distributed data concepts. Information synchronization continues to lag behind the real need for people like yourself to become completely untethered from the central datastore. Consequently, operating systems, database engines and groupware products are barely beginning to implement the concept of transparent data ownership and data access, although promises abound. Fortunately, some vendors do offer a glimmer of hope. The latest **version** of Borland's Sidekick (v2.0) lets you take your calendar on the road and then, through a menu selection, shows a comparison of two calendar files so you can copy or move information between the two. This reconciliation process, although still manual in nature, offers a way to **keep** your calendar and to-do lists synchronized. (It would be even nicer if it were fully automated.) Lotus Notes offers one of the best examples of synchronized data files. It takes data from far-flung Notes servers (running OS/2) and negotiates the appropriate updates through the wide area network links. The nasty side of this solution is the requirement for a complete commitment to the Notes environment and the continued high price tag of the product itself and its associated operating platform. If you really need the capability to synchronize your information between various offices, Notes will work well, but it may be a little overkill if you only need to synchronize two copies of your calendar. Frankly, this capability of database, file and record synchronization needs to become part of the underlying operating system in order to make all applications capable of reconciling their **multiple** iterations. Until that happens, you can look to progressive vendors to roll these concepts into their own offerings. We ran communication software on PCs with standalone modems for quite some time. Recently, the systems department installed a PC network and took all the modems away and told us to use the network to get to a modem pool. It works well, but the characters come across the screen in a very jerky fashion. Why does this happen and what can I do to fix it so it will scroll smoothly again? There's really no easy way to make your communications session appear the way it used to, with smooth scrolling screens of **information**. **Part** of the problem stems from the very nature of local area networks. In order to offer great performance and quick response times to file and print services, networks talk in large **chunks** of **information**. These **chunks** or **blocks** of messages between your PC and a file server usually range from 512 bytes to 4,096 bytes. A normal communications software package talks to a standalone asynchronous modem one character (byte) at a time. Consider a scenario in which your modem pool exists on one end of your network, lying next to the telephone system, and you need to dial into a service like Dow Jones to check your stock prices to find out how much money you made today. Each keystroke you make must be packaged within the network communication packet and sent along to the modem pool device and the modem, which must acknowledge receipt; the acknowledgement must then be retransmitted by the modem pool server and received by your LAN communications software. This process creates a noticeable delay. In addition, when a remote communications service fills a screen of **information** for you, the jerky screen **update** begins, and you see what looks like quick bursts of information appearing on the screen. These bursts represent the modem pool server's best

attempt to give you a reasonable tradeoff between the character-at-a-time information it receives from the modem and the large chunk of information it needs to send on the LAN to keep things running smoothly. Most packages I've seen show about a quarter of a screen or 512 bytes of information at a time. In fact, if you use a stopwatch and record the time required to update a screen of information, you will find that it is very close to the same amount of time it took with your smooth scroll receipt with a standalone modem. So I guess that you have to get used to the jerky screen. But fear not, your communication session should be just as productive as it was before and your company will save money by sharing the modem and phone line costs with other members of the pool. Our department set up a small network on which all the computers contained essentially the same equipment. The 386 SX computers each have 2 Mb of memory, a VGA on the system board and an Ethernet adapter. Recently, we've been asked to expand our network by adding the existing computers in another department on the floor. Unfortunately, that department has machines that span 10 years in age, with everything from monochrome monitors to SuperVGA systems on XT's to 486-class computers. How can I modify my network batch files to recognize this hardware array? This topic really hits some people's hot buttons. Ideally, software would recognize the capabilities of each computer and run transparently. LAN administrators keep hoping the software vendors will provide transparent access but in reality few packages can handle the PC variety gracefully. Consequently, each network implementation invents a way to indicate to batch files which parameters pass the appropriate startup information to the programs. The most common method uses the DOS environment variables with SET parameters for smart execution. (See accompanying chart.) Over time, LAN fans found that two types of parameters need to be presented to application software: machine- or PC-specific information and people- or LAN user-specific information. When PC-centric data resides in the machines' AUTOEXEC.BAT files, hardware specifics get covered by the PC boot process. Then, ideally, network user information becomes appended to the DOS environment space when someone logs into the network file server. The accompanying figure provides an example of some DOS environment variables and their optional values. Administrators then write their batch files with GOTO instructions that conditionally execute the command sequences to invoke the appropriate drivers. Of course, you must assume that the software can call a specific driver set from the command line, refer to the location of a driver set for each machine type from the command line or, as we'd hoped in the beginning, understand what the computer contains in the first place. Any of these options gives users work-arounds for smart execution; if none exist, specific executable code cannot be shared without installing it for each hardware combination on the network. To make a network application truly aware of its operating environment would require a network operating system-specific API interface that would store machine specifics by serial number or LAN adapter address and user specifics by user ID. So far NOS vendors are much farther ahead with the user information, but application vendors do not couple tightly with the NOS anyway. Instead, the users end up with a myriad of methods for storing machine specific information. The move to graphical user interfaces (GUI) is one positive step toward software's independence from the physical hardware, because one profile for each computer lets application software talk to a virtual machine that then translates to the physical implementation. We use remote control software on our LAN to gain access to a shared CD ROM and control several e-mail gateways. Recently we tied a remote office into our main LAN with bridges and a dedicated 56 Kbps link. Now the remote control software shows about a one-second time delay for every character echoed through the link. How can we reduce the delay between characters? In effect, this is the same problem encountered above with the modem pool software. LANs operate with large packet sizes and typing implies a character at-a-time packetization. To get around the problem, you need to reduce the packet size between your computer and the remote machine being controlled. This may require adjusting the packet size of the bridges as well. Many LAN drivers contain a way to adjust the packet size when booting your PC but do not allow adjusting the packet size later. Ideally, the LAN driver would adjust the packet to the most appropriate size depending on the response

to the remote LAN address, but few vendors implement dynamic packet size adjustments. Instead, many arbitrate the starting packet size by the attachment to a user's home server and leave it there. The tradeoff again is the difference between responsiveness and throughput. Smaller packet sizes will be more responsive through slow links but offer less throughput and actually slow your PC's access to the local part of your LAN. So you need to adjust to a smaller packet size when you load your LAN driver, force a logon to a server through the remote link or live with the lack of responsiveness and encourage your NOS vendor to work on dynamic packet adjustments.

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25/5,K/2 (Item 1 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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02421507 SUPPLIER NUMBER: 63800174 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**E-Business - Companies are deploying a phalanx of Internet technologies in their quest for a competitive edge. (Internet/Web/Online Service Information)**

Rupley, Sebastian  
PC Magazine, 140  
August 8, 2000

ISSN: 0888-8507

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1996

LINE COUNT: 00167

ABSTRACT: New Web technologies for E-business are evolving rapidly, with many new products built around the XML standard. XML lets the Web act much like a library card catalog with greater intelligence, improving Web searching and supporting sophisticated intelligent assistants. It can work in conjunction with the hybrid XHTML language to allow more effective language translation and enable multilingual sites. IP Security (IPsec,) a new security standard in development, introduces e-commerce security at the network layer rather than the application layer as found in earlier implementations. Voice over IP technology is enabling many commerce sites to let customers talk to human representatives as they navigate, but current implementations tend to be unreliable and hard to use. New software lets e-merchants analyze customer behavior to improve service and strengthen marketing.

GEOGRAPHIC CODES/NAMES: 1USA United States

DESCRIPTORS: XML; Internet/Web technology; Business to business market; Internet/Web overview

EVENT CODES/NAMES: 361 Services development

PRODUCT/INDUSTRY NAMES: 4811520 (Online Services)

SIC CODES: 4822 Telegraph & other communications

NAICS CODES: 514191 On-Line Information Services

FILE SEGMENT: CD File 275

... devices more secure and reliable, with better store-and-forward capabilities, more robust instant messaging, and improved data synchronization.

**Part** of the technology challenge in extending e-business applications to **new** devices is facilitating cross-platform access to **data**. **Many** companies are competing in this area. Sun Micro systems and IBM would like to see Java and XML work together to accomplish this. Sun recently expanded XML support in its j2ee (Java2 Enterprise **Edition**) and announced the development of a Java api for XML messaging. An IBM technology called WebSphere Transcoding...

...Solution Set for Mobile Wireless Internet, reconstitutes Web data into formats that hand-held devices can display. **Many** kinds of content are being repurposed into wml (Wireless Markup Language) format for display on hand-helds...

25/5,K/3 (Item 2 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01439758 SUPPLIER NUMBER: 10957512 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**MiniFinders. (buyer's guide to Apple Macintosh hardware and software)**  
**(buyers guide)**

MacUser, v7, n8, p135(49)

August, 1991

DOCUMENT TYPE: buyers guide

ISSN: 0884-0997

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 80288 LINE COUNT: 06476

DESCRIPTORS: Directories; Peripherals; Software packages

SIC CODES: 7372 Prepackaged software; 3572 Computer storage devices;

3577 Computer peripheral equipment, not elsewhere classified; 3575

Computer terminals

TRADE NAMES: Apple Macintosh (680X0-based system)--Equipment and supplies

FILE SEGMENT: CD File 275

... 9674. (June '91)

DAL (Data Access Language) 4

DAL is an API (application programming interface) for sophisticated  
**client** /server database access. Server operating systems include IBM MVS  
and VM as well as VAX/VMS. Database...CA 94501. (800) 334-6056 or (415)  
748-6680. (Oct '90)

Lasergraphahics CPS 3

This thermal-wax- **transfer** printer is fast but has mediocre print  
quality. Has low resolution, with dpi of 203 (H) and...

...Rd., Eden Prairie, MN 55344. (612) 944-9457. (Oct '90)

Mitsubishi S340-10 4

This sublimal-dye- **transfer** printer creates excellent proofs. Superb  
print quality. Color range is limited, although the gradients are  
excellent. Would...

...80

4 1/2

Offering true PostScript, the Colormate PS Model 80 was the fastest  
thermal-wax- **transfer** color printer we tested for our May '91 lab report.  
Standard RAM configuration is 8 MB. Halftoning...

...8000. (May '91)

Oce OcéColor 4

Offering true PostScript, the OcéColor is a fast, compact thermal-wax  
**transfer** color printer. Standard RAM configuration is 5 MB, upgradable to  
8 MB. Halftoning is poor, but overall...Model 10 3 1/2

The ColorScript 100 Model 10 is the first four-color thermal-wax-  
**transfer** PostScript printer. Fast and simple to install and use. Excellent  
typographic capability. Standard RAM configuration is 5...

25/5,K/4 (Item 1 from file: 674)  
DIALOG(R)File 674:Computer News Fulltext  
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094973

**Linux lends a hand to Sun engineers**

Byline: JOHN COX

Journal: Network World Page Number: 1

Publication Date: July 16, 2001

Word Count: 1132 Line Count: 103

Text:

...Linux? Sun says the open source operating system has shown itself to be  
reliable, adept at handling **multiple** applications and inexpensive. Sun

rejected far more prevalent handheld operating systems, such as Windows CE and Palm...

... a team of vendors to create a rugged, PDA-sized handheld, packed with memory, running a compact **version** of Linux and a suite of applications ported to it. The initial test group of 50 engineers...

... service application for the device. The new Linux appliance is expected to let engineers visit more jobs, **record** customer **information** more accurately and continuously **update** Sun's database for identifying and fixing support problems. Until now, engineers lugged around two-way pagers to get alerts on their assignments and basic customer contact information, cell phones to **keep** in touch with supervisors, laptops to run access and download troubleshooting data, and paper forms that had to be filled out and filed for each job. Initially, the Linux device in **many** cases will be one more piece of equipment to carry around, although Richards expects it to quickly replace **several**, and maybe even all, other devices. About a year ago, Richards' group began examining Sun's paper...

... packed in with other server brands. The new application will be able to key a set of **information** to the **particular** job that an engineer is working on. So for a given memory chip replacement job, the database...

... usable when switched on. It had to have enough processing power and memory to run applications and **store** fairly large files. A wireless modem would let it periodically synchronize with corporate servers. Windows CE was... Sun's experience shows that Linux can be a key part of extending critical enterprise applications to **mobile** computing **devices**. But it also shows that doing so requires extensive, and expensive, custom programming, and a closely supervised...

... to with an ironic comment. "Aside from the fact this was custom development, with a brand-new **version** of Java and Linux, and brand-new applications, it wasn't that hard," he says.

25/5,K/5 (Item 2 from file: 674)  
DIALOG(R)File 674:Computer News Fulltext  
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091732

**Syncing handhelds to corporate data wirelessly isn't easy**

Byline: JOHN COX

Journal: Network World Page Number: 16

Publication Date: February 26, 2001

Word Count: 823 Line Count: 79

Text:

**NEW** YORK - The benefits of synchronizing **data** over wireless networks between handheld users and corporate networks promise to be great, but observers say the...

...mobile users, updating corporate applications with data collected in the field, and providing end users with faster **data** response times by enabling them to **store** **updated** **data** on their **mobile** **devices**. But enthusiasm for such benefits is tempered by concerns that wireless links are slow, prone to glitches and expensive. IT groups also have to resolve tough issues such as who's responsible for **data** and the **changes** to it; how to reconcile **changes** to **data** stores; how to juggle **data** structures in different applications; and how to design applications for low-storage, low-bandwidth handheld devices. "It...

... acquisition WeSync, that will let Palm's newly unveiled MyPalm portal act as a clearinghouse for pushing **data** **changes** out to all Palm devices authorized to share contact, calendar and e-mail **information**. "A **change** to **data** on any Palm device will be synchronized with all other authorized Palm devices linked to the portal...

... desktop computer ~~or~~ a laptop," says Bill Jones, vice president of product management with Synchrologic, one of **several** synchronization vendors exhibiting at the show. "How can we harness the raw computing power of the enterprise...

... server products in a few months. Another vendor, Extended Systems of Boise, Idaho, is working on a **version** of its ExtendConnect Server software that is designed for wirelessly connected handhelds. A key part of the new **release** is a **store** -and-forward messaging system that can handle the vagaries of glitch-prone, low-bandwidth wireless connections. "Right...

... The traditional difficulties of replicating data are compounded by unreliable, low-bandwidth wireless networks, which might lose **part** of a **record** or drop a database transaction halfway through the **update**. The transmission of **data** has to be minimized and even more managed. It needs to be sent in small chunks and be able to restart after a dropped connection without the entire **update** being sent again. Dynamic **data**, such as changing inventory or package shipping information, is the worst for synchronization, Gonzalez says. It's better to **keep** such data on a server and let users, if they must, wirelessly access it via a browser. **Data** that **changes** rarely is better-suited for synchronization, but users need to ask themselves how valuable is this data...

... how necessary is it to wirelessly synchronize it? "Why not use a cradle?" Gonzalez asks. "If the **data changes**, say, every Tuesday at 6 a.m., just tell all your users to dock their handheld in...

25/5,K/6 (Item 3 from file: 674)  
DIALOG(R)File 674:Computer News Fulltext  
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089199

Comdex: **SAN management dominates show floor**  
Byline: Agam Shah  
Journal: Network World  
Publication Date: November 15, 2000  
Word Count: 791 Line Count: 75

Text:

... Pvt. Ltd., based in Havant, U.K., introduced three hardware-based SAN analyzers for desktops, notebooks and **portable devices**. **Devices** connect to SAN components, and performance of Fiber Channel SANs is monitored and analyzed. The SAN analyzers...

... manages the controllers. CMD is working on standards that will be incorporated in the soon-to-be **released** FC2 standard, according to Simon Huang, chief executive officer. CMD Technology, in Irvine, Calif., is at <http://>

... to Fibre Channel Host Bus adapter (HBA), the HHBA-5220-1. The HBA adapter is capable of **transferring** data up to 2G bit/sec. The product is an **upgrade** to the HHBA-5220, which can **transfer data** up to 200M bit/sec in half duplex mode, and 400M bit/sec in full duplex mode...

... com. <li> SerComm Corp., a server appliance provider, introduced its SOHO Server, a network attached storage (NAS) **device targeted** at home networks. The SOHO Server aims to act as a hub, a single storage device connecting **multiple** home devices that include standalone PCs, tape drives and modems. SerComm, in Hsinchu, Taiwan, is at <http://>

... device, which creates an end-to-end data tunnel over an IP network, ensuring error-free data **transfer**. While **transferring** data over an IP network, the SL1000 component on one end converts the data into a packet...

... attached to the SAN component on the other end. SAN Valley doesn't buy the notion that **transferring** data from a server to tape backup over an IP



network will mean the ta drive is...

... Valley. "Quality of Service (QoS) exists, it just has to be used," to enhance the experience of **transferring** data over an IP network, he said. SAN Valley Systems, in Campbell, Calif. is at <http://www...>

25/5,K/7 (Item 4 from file: 674)  
DIALOG(R) File 674:Computer News Fulltext  
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088868

**Wares extraordinaire**

**Network World columnists and newsletter writers talk about category-breaking products and services.**

Byline: Staff

Journal: Network World Page Number: 83

Publication Date: November 13, 2000

Word Count: 3083 Line Count: 288

**Text:**

... an offering that impacts the user and managed services provider markets. Let's face it, trying to **keep** pace with the growth in demand (new users, technologies and services) has stressed **many** IT departments to the breaking point. IT managers have used outsourcing, but they've always run into...

...agreement (SLA) monitoring, internal IT trouble-ticket response (such as first-level tech support), software monitoring and **upgrades**, and **data** backup. In short, anything that you would normally do internally, SilverBack can arrange for through InfoCare. To...

... something you hold - the card - and something you know, such as a password. Smart cards let users **keep** their personal identification numbers (PIN), passwords and secret keys in a safe place - in the card's protected memory - rather than **storing** them on a PC or server where they're vulnerable to eavesdropping. Combined with PINs and biometrics... become a fast, cheap, easy way for average users to hang virtual padlocks on their PCs and **portable** Web **clients**. Kobielus is an analyst with The Burton Group, an IT advisory service. He's located in Alexandria, Va. On the network's edge - David RohdeWhen a carrier says it wants to **save** you some money, often what it means is it wants to **save** itself some money. Just being a telecom carrier is so expensive that carriers almost always try to...

... second-stage DSL aggregation, a key need of local carriers to pull together DSL streams arriving from **many** buildings and neighborhoods before hauling them off to core networks. The key software feature that gave ASC...

...services to users, but they're quick to implement them on the trunk side if it'll **save** them money. The boxes are software-configurable to provide any service to any port. ASC customers include...

... hopes to announce some big incumbent carriers as aficionados too. After all, even Bell companies want to **save** themselves - er, you and your remote-access users - some money. Rohde is managing editor of The Edge... manner to employees, partners, vendors and customers. You'd like the information to be in one data **store** for ease of use and enhanced security, but which one - the directory or the database? Radiant Logic...

... is simply a pointer. It's stored in the directory and points to the location of a **piece** of **data** (a field, row or calculated value) in a relational DBMS. No data synchronization is necessary; the relational DBMS value is retrieved when needed by any directory viewer application. This way, each data **store** can be optimized for what it does best: the directory for browsing, the database for transaction processing...

...while leveraging the hierarchical structure of the directory for secure,

easily implemented bro...ng. RadiantOne works with P Version 3 directory servers and most major relational database products. You may not be aware that you need...

... Internet service assurance." The eAssurance software provides a comprehensive business approach to sitewide Internet service-quality management. **Many** load-balancing products even out the load of Web site requests across servers in the hope of...

...significant impact on the computer industry as a whole: personal desktop firewalls. I take this position for **many** fundamental reasons. Within the home telecommuting and small-office environments, use of fixed IP addresses with cable...the market segment, and hope that both the larger and smaller companies now competing in this space **keep** in mind a couple of things: Dangers to desktops come from inside and outside a corporate perimeter...

... usable by Jack and Jill Average with minimal impact upon their day-to-day jobs. One too **many** false positive is a sure way to get users to unplug a product meant to help them...

25/5,K/8 (Item 1 from file: 696)  
DIALOG(R)File 696:DIALOG Telecom. Newsletters  
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00762680

**Capturing The Elusive Corporate Contract**  
Wireless Insider

April 23, 2001 VOL: 19 ISSUE: 16 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: PHILLIPS BUSINESS INFORMATION  
LANGUAGE: ENGLISH WORD COUNT: 1866 RECORD TYPE: FULLTEXT

Give Hard-To-Please Enterprises What They Want: Everything, At One Low Price By Ruth Suarez Zane Because a multitude of customers can be snatched up in one tidy contract, enterprises are

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COMPANY NAME(S): Air2Web ; Argus ; AT&T Digital PocketNet ; AT&T Wireless ; Bass Hotels & Resorts ; Carrier ; Carriers 's Enterprise Voice/Data ; Cost/Packaging ; Give Hard To Please Enterprises ; Holiday Inn Express ; Mobile Office ; Nextel Communications ; PCS' ; Sprint PCS Wireless ; Sybase ; Verizon Wireless ; ViAir ; VoiceStream ; Wireless Inbox Corp

TEXT:

...hotels and making room reservations. Using Atlanta-based Air2Web's Internet platform, the system allows hotels to **store** room preferences and credit card information to offer guests personalized reservations. There's no question about the popularity of mobility: **wireless devices** in the workforce are getting strong use. To wit, the Navy's Military Sealift Command is using...

...Identical Twins

While data presents wireless carriers with a fresh revenue source that could entice lots of **new** enterprise customers, combining **data** services with voice offerings is no easy task. Fusing voice and data services into one, fully functioning...

...introduced a new pricing plan to eliminate confusion associated with the costs and rules accompanying voice and **data** plans. Its **new** corporate plan, Total Digital Connection (which also has a consumer **version** ) was created

to  
simplify voice and data.  
For one rate, the customer gets a large amount of business marketing. "  
**Many** enterprises have begun  
their wireless data concept projects, and others are just getting started.  
With  
technology changing rapidly, we find **many** enterprises need some help  
sorting the  
hype from the reality."  
Sprint PCS put together a team of...

...improved customer response, as well as top-line benefits - m-commerce,  
new  
customer interaction and retention models. **Many** of the second-wave of  
wireless  
applications will require increased bandwidth - and Sprint PCS will be  
there...

...but data is  
fueling the industry at speeds handset manufacturers, software developers  
and  
carriers are struggling to **keep** up with.  
"Businesses are moving to large scale purchases but a limitation right  
now is network speed," says Todd Leeson, VoiceStream director of business  
marketing. "**Many** U.S. carriers are operating between 9.6 and 19.2  
kilobytes per  
second and a lot...

...networks  
that carriers are just doing the best they can without investing ridiculous  
amounts of money to **upgrade** their **data** networks."  
While all players in the wireless sector benefit from making enterprise  
wireless needs a reality, coordinating...ViAir's  
corporate wireless data product, Wireless Inbox Corp., to target North  
American  
wireless customers. Nextel packages **data** as **part** of its on-line  
package.  
According to Calabrese, Nextel is one of the more successful carriers  
targeting...

...its voice and data, it's targeting  
specific professionals with its Digital PocketNet plan. For instance, its  
**Multiple** Listing Service is designed for real estate agents, simplifying  
property searches, and giving users access to up...PCS, 913/762-7017.)  
Carriers' Enterprise Voice/Data Plans

Carrier: AT&T Wireless  
Service: Digital PocketNet  
Description: **Multiple** Listing Service is designed for real estate agents  
to  
simplify property searches by allowing agents to search...

...to 10 different email inboxes on  
Nextel Internet-ready phone. Users also receive email alerts and can **store**  
up  
to 10 QuickText messages.  
Cost/Packaging: Price included in Nextel Online Plus service. Nextel Online  
Plus...

25/5,K/9 (Item 2 from file: 696)  
DIALOG(R)File 696:DIALOG Telecom. Newsletters  
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00752195

**STREAMING MEDIA BATTLE**  
**CONSUMER ELECTRONICS**

December 18, 2000 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: WARREN PUBLISHING INC.  
LANGUAGE: ENGLISH WORD COUNT: 593

RECORD TYPE: FULLTEXT

RealNetworks and Microsoft squared off last week in race to deliver advances in Internet audio and video software that exploit faster

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COMPANY NAME(S): Audio ; Hewlett Packard ; Kenwood ; Microsoft ; Singingfish ; Technicolor ; Thomson ; TuneTo ; Wall St Journal ; Windows Media Video

TEXT:

...that exploit faster communications and smaller devices.

At Streaming Media West in San Jose, Microsoft demonstrated updated version of Windows Media technology it said approaches DVD quality at transmission speeds of 500 kbps, which is largely limited to broadband networks. Windows Media Video and Audio 8 software can store audio recording in 1/3 of file space required by MP3 and download 60% faster, Microsoft said...

...software that it said was up to twice as fast as its existing products and could handle multiple data formats. RealSystemIQ is update of software that RealNetworks and others use to broadcast audio and video over Internet. Software typically is...

...in decentralized manner that would reduce clogging of networks.

RealNetworks exec. told Wall St. Journal that Microsoft release was "me-too" product that didn't represent significant advance in technology. But Kenwood showed portable CD players using Microsoft format that could store more than 22 hours of music on single disc. Microsoft Pres. Steve Ballmer also demonstrated multimedia features...

...PC based on Windows CE operating system to demonstrate technology designed to deliver high-quality audio to devices with wireless modems. Typical wireless modem transmits content to handheld at 19.2 kbps, but TuneTo CEO Timothy Bratton said technology overcomes delivery problems by dividing audio files into 2 parts . Portion of song is downloaded in advance by users and stored on handheld PC or other device...

25/5,K/10 (Item 3 from file: 696)  
DIALOG(R)File 696:DIALOG Telecom. Newsletters  
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Q&A With SmartRay's Troy Tyler  
CableFAX

July 11, 2000 VOL: 11 ISSUE: 134 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: PHILLIPS BUSINESS INFORMATION  
LANGUAGE: ENGLISH WORD COUNT: 2465 RECORD TYPE: FULLTEXT

As promised in our last issue of min's NMR, here is the complete Q&A with Troy Tyler, CEO/president of SmartRay, which provides a network of free content to wireless users. The company

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COMPANY NAME(S): AT&T PostNet ; New York Times ; Q & A Showtime  
Networks ; SmartRay Realtime Entertainment ; Tyler ; Viacom

TEXT:

...turning out or evolving, I call this the bear or the  
mountain lion problem. You've got **several** of these companies out there  
that are  
really turning into big bears. And you have to decide...  
...content brands, they'll tell you what's in their heart of hearts. You'll  
find  
that **many** are frustrated by perhaps four or five brands that are  
increasingly  
strengthening their brand proposition in ways...execution, and  
then consolidation in a lot of segments. Financial news or entertainment  
news,  
there are too **many** people fighting for attention.

mNMR: Which three sites other than your own do you visit daily?

Tyler...

...platform. Each platform will do  
what it really does well, and then we'll have some stepchild **version** of  
the  
experience of the other platform. You'll see the same thing in mobile.  
You're...

...well.

mNMR: Some publishers think or hope that the convenience of delivering  
highly personalized content onto a **mobile device**, where customers are  
used to  
paying incremental fees for added service, may revive the fee-based model  
...We're building a network of content with myriad partners - unlike  
the portals that are trying to **keep** you on their site. Our whole strategy  
is to  
be an open garden site.

mNMR: And presume...construct their content? Doesn't wireless delivery  
demand even greater  
personalization, even more emphasis on real-time **updates** to **data**? It  
seems to  
me, in some respects, wireless raises some expectations about content.

Tyler: The two most...

...architected. We don't run applications against that database of  
information. Our applications run only upon that **piece** of **information**  
of  
interest in the stream. We think it's important to do that because, in  
mobile,  
personalization...  
...show it around.  
The most popular delivery is geography-based, real-time weather. Almost  
everybody gets it. **Many** of those content types will continue to dominate.  
News  
related to finance and things that are transactional...

25/5,K/11 (Item 1 from file: 636)  
DIALOG(R) File 636:Gale Group Newsletter DB(TM)  
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04118932 Supplier Number: 54124022 (THIS IS THE FULLTEXT)

AUDIO NOTES.

Audio Week, v11, n11, pNA  
March 15, 1999

ISSN: 1044-7601

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 2514

TEXT:

Web entertainment site host Entertainment Boulevard selected I-Fill, music and video distributor, to provide product fulfillment for its online store set for 2nd-quarter launch. Site will have inventory of more than 180,000 music and film titles and will sell additional entertainment-related merchandise. Market Tracking International said music sales over Internet topped \$28.7 million last year and are expected to reach \$550 million by 2000, \$3.3 billion by 2004. ----- Creative Labs, girding for battle with archrival Diamond Multimedia, will ship portable audio player in 2nd quarter as first in series of MP3-related products, spokeswoman confirmed. Player, which will allow user to play back audio downloaded from Internet to PC hard drive, will have 64 Mb memory, be priced under \$200, contain graphics display that shows title of song being played, spokeswoman said. Manufacturer is said to be S. Korea's Saehan, which built prototype that Creative showed at Comdex in Nov., but spokeswoman declined comment. As part of launch, Creative has signed download agreements with Audible.Com, Audio Highway.Com., GoodNoise, Music Match. New product is believed to be part of broader Creative Labs restructuring built along

divisions dedicated to specific products that's taking place within company to focus divisions on specific products. New Portable Digital Entertainment Group, which will be headed by Multimedia Products Vp Hock Leow, will handle MP3 products. "It's definitely a significant move as it shows they're moving away from sound cards into other lines," analyst said. Analysts had been concerned that Creative Labs was headed for flat 3rd quarter amid faltering of its audio business, which suffered from increased competition and lack of new products. Introduction of MP3 portable will set up showdown with Diamond Multimedia, which has competed with company in sound card and other PC peripheral markets. Diamond set off first storm last fall when it introduced its Rio player at \$199. RIAA later filed suit against Diamond alleging that Rio violates Audio Home Recording Act (AHRA). ----- Combination of DTV-ready display devices and set-top boxes is better option for consumers than integrated DTV set, Strategy Analytics (SA) report said. Study said DTV electronics will need to be updated regularly because of technology changes, and it won't be cost-effective to replace both box and display device each time. It predicted that only 6% of households will own integrated DTV set by 2005 (SA -- 617-738-1300). ----- Microsoft made undisclosed equity investment in newly named Reciprocal Inc., which developed software and other equipment to function as electronic clearinghouse for access to digital content. Reciprocal, formerly called Rights Exchange Inc., is believed to have received \$15 million from Microsoft in addition to what it called "strategic technology and marketing alliance." Reciprocal said its technology prevents unauthorized access to streaming audio or other digital content distributed over Internet as well as illegal consumption or reproduction of material after it has been downloaded to PCs. Pres. Paul Bandrowski said result would be "new market for digital content." **Several** other companies, including AT&T, IBM and Sony, have announced similar technologies in recent weeks. Meanwhile, 18 companies made presentations to latest meeting of recording industry-led Secure Digital Music Initiative (SDMI) March 5. SDMI session was first for **portable device** working group. **Goal** is to allow consumer devices to be on market by Christmas selling season that could record and play back digital audio without violating copyrights. Working group is headed by Jack Lacy of AT&T. ----- Ten-city media tour was announced by CEMA to promote car audio and participation in Mobile Electronics Certified Professionals (MCEP) accreditation program. Tour starts March 19 at Spring Break Nationals in Daytona and ends just before Memorial Day. ----- "Retailing and the Internet" is subject of day-long seminar May 18, Omni Dallas Park West, Dallas, sponsored by CEMA and 4 other trade groups -- CEMA, 703-907-7600. ----- World finals of International Auto Sound Challenge Assn. (IASCA) will return to Greenville, S.C., Oct. 9-10 following stint last year in Dallas. IASCA said it will be 3rd time in 11 years of competition that event will be held in Greenville. ----- World's first home DAB tuner goes on sale this week in U.K. from

British hi-fi supplier A... at about \$1,300. Component t... automatically scans VHS band for DAB transmissions and stores their frequencies. Quality is said to be near CD, with no interference. BBC already digitally simulcasts its analog programs, and commercial stations in U.K. are expected to follow in Oct. BBC soon will expand its service by broadcasting rock and pop music from its archives. BBC executive Will Wyatt hopes receiver costs will decline by 1/3 by Christmas. ----- THX specification for electronic cinema projectors was announced last week by licensor Lucasfilm at ShoWest trade show for theater owners in Las Vegas. Lucasfilm said that although commercial introduction of electronic cinema "is not immediately imminent," spec is needed to "make it clear that THX is committed to lead rather than follow in exploring new technologies." It said spec was developed to guide theater owners in selecting best possible equipment in transitioning to electronic cinema from 35mm film. Company also said it plans soon to certify electronic masters and has started researching various proposed transmission methods as prelude to developing standard "that would guarantee against any compromise in picture and sound quality." ----- Federal Circuit Appeals Court, D.C., rejected Thomson appeal of lower court ruling that backed jury verdict invalidating company claims to 4 basic patents on optical recording technology. Patents have generated \$40 million in royalties for Thomson and figure prominently in CD and DVD formats. Three-judge appeals panel, in 4-page decision, said that U.S. Dist. Judge Joseph Longobardi, Wilmington, Del., was correct in finding that "substantial evidence" supported jury verdict that Quixote Corp. had shown "every limitation" in CD patents was "anticipated" by prior invention. Thomson, in requesting appeals court reverse Longobardi's denial of its motion for judgment as matter of law (JMOL), argued that verdict rested on "mere" testimony of 2 MCA engineers who worked on videodisc project and that evidence from inventors required "corroboration." Allegations "failed" because Thomson didn't "present circumstances in which there is a need for corroboration," appeals court stated. While Thomson maintained that corroboration was needed because the MCA employees had business dealings with Quixote, argument didn't "rise to the level of self-interest required to justify triggering application of corroboration rule," court said. Thomson's only showing of "potential bias" was cross-exam of one witness meaning that jury "had the necessary facts" to determine credibility. George Badenoch, attorney for Thomson, wasn't immediately available for comment on possible appeal, while Quixote's attorney, Thomas Giannetti, declined comment. Case has been moving through federal courts since 1994 when Thomson sued Quixote, subsidiary Disc Mfg. Inc. (DMI), and 4 other CD manufacturers for patent infringement. All but Quixote and DMI avoided legal battle and settled with Thomson out of court settlements before trial in 1996. Key element of trial had been MCA DiscoVision's unpatented laser videodisc that Quixote had cited as evidence of prior art that could invalidate Thomson patents. Thomson conceded that MCA demonstrated disc in 1972 that showed some claims contained in its 1989-1993 patents, but denied that it "met all elements" of them. Thomson had insisted that laser videodisc didn't involve "substantially" constant CD pit width with track pitch at least 2x width and that it had "crudely formed" round or oval bumps that didn't store information along their length. ----- Harvey Electronics agreement to open Bang & Olufsen stores in metro N.Y. market runs 7 years starting with lease of Manhattan outlet that becomes effective June 1, according to pact, copy of which was filed by Harvey with SEC. Plan requires Harvey to maintain at least \$1 million in general liability insurance coverage, \$500,000 in property coverage. First year's lease is worth \$114,000, with 3% increases stipulated for each year thereafter. Harvey has said it will open 5 B&O locations. ----- Ultimate Electronics profits rose significantly for 4th quarter and 12 months ended Jan. 31 on higher revenues from shift toward higher-margin "upscale" segment of consumer electronics and sharp reductions in PC inventories. Income for quarter jumped to \$3.81 million (45 cents per share) from year-earlier \$996,000 (12 cents) on 9% sales increase to \$115.95 million from \$106.86 million. For 12 months, profit grew to \$2.91 million (35 cents) from \$148,000 (2 cents) on 10% sales increase to \$337.45 million from \$306.31 million. Pres.-COO David Workman said company is "excited about the ongoing sales momentum" driven by new digital products, including double-digit growth in DVD. ----- DVD rentals overseas are picking up momentum. Sony's

Columbia-TriStar in Europe now offers retail package that handles 16 titles and point-of-sale materials for \$300 -- under \$19 per disc. Studio also is running consumer "Rent and Win" promotion through Dec. to boost rentals, with more than 30 titles monthly tagged with phone number for customers to enter drawing for Sony DVD player. Besides awarding deck to 2 viewers monthly, retailers that rented DVDs to winners also get Sony player. Pool of DVD titles for rental in Europe is expected to deepen later this year, Columbia TriStar said, when it assumes distribution of Universal's discs outside U.S. Proliferation of DVD rentals in Region 2 Europe as well as more day-and-date releases with VHS there is hoped to stem trade in Region 1 U.S. discs played on modified decks. But recent catalog from U.K. mail order house McNo offered long list of Region 1 and multiregion titles. Catalog took over CD-I distribution from Philips when latter dropped software for interactive format. In Japan, meanwhile, top video rental chain Culture Convenience club has expanded DVD rentals to 800 of its 950 outlets, from pilot test begun in 2 Tokyo stores in Dec. 1997. Retailer said rentals doubled to 1,200 in Dec. in pilot stores from year ago. However, spokesman said DVD player rentals have declined, indicating increase in installed base. DVD rental titles in Japan are available from Pioneer, Sony Pictures, Warner. ----- Digital music videos will join music offerings from DMX when supplier of in-store entertainment announces transition to Internet transmission of content later this month. DMX spokesman told us company will announce electronic delivery plans in conjunction with IBM and content partners at GlobalShop trade show (Chicago, March 27-29). DMX now transmits music programs by cable and satellite. Besides on-premises music for retailers, DMX offers music channels consumers through services such as DirecTV. Spokesman said company will offer Internet delivery to homes over long term. ----- Video delivery by high-speed phone lines has attracted first investment from new \$50 million Matsushita fund established to nurture high-tech start ups. Japanese CE giant will bankroll work in progress by Sunnyvale, Cal.-based Epigram on video and data over conventional phone lines. ----- JVC will halt movie-acquisition and sales activities of its Cal.-based Largo Entertainment subsidiary. Now, Largo will administer revenues and rights to only about 30 movies it still owns. JVC set up Largo in 1989 in attempt to produce movies -- partly to feed titles for fledgling prerecorded S-VHS market. Effort didn't succeed and in 1994 Largo switched to rights acquisitions and sales. ----- Online links for "hidden content" or value-added features are used in DVD-ROM game for PC and new "enhanced" CD. E-CD from U.K.'s Abbey Road Interactive has "hidden" song track, but listener needn't be online to hear cut. Instead, disc user registers with online site and gets personal password that enables song to be played offline on specific PC used to register. Studio said benefit is that consumer isn't dependent on getting Internet connection each time CD is played. Separately, videogame developer Psygnosis said it will demonstrate its first DVD-ROM-based game for PCs at Game Developers Conference (San Jose, March 15-18). Title is Lander, sci-fi game slated to ship late March, that permits 8-user multiplayer over local network or on Internet. ----- After laserdisc sale to public at its warehouse, Pioneer Entertainment has held its first direct-to-consumer laserdisc sale via mail order. Company offered discs at \$10 each for 1-10, \$8 each for 11-20, \$6 each for 21 or more discs, with postmarked orders due by March 9. But Pioneer isn't yet getting out of laserdisc software business, Sales & Mktg. Mgr. Ann Mosher said. Company gave deadline for orders "because we wanted sales in by the end of March, for the end of our fiscal year," she said. It has "no plans to stop" selling laserdiscs yet, Mosher said, and will continue to sell to consumers over its Web site. Company has multiyear agreements with Paramount and Universal and will continue to maintain its catalog, she said. More than 2,000 people attended warehouse sale in Carson, Cal., last weekend in Feb., she said, when Pioneer offered 1,400 titles priced at \$4 and up: "There are still a lot of enthusiastic laserdisc customers out there." ----- VHS Videotape Coalition is latest group formed by International Recording Media Assn. (IRMA) Coalition Initiative. Group was scheduled to be launched officially at IRMA Executive Forum last week and in addition to Audiocassette Coalition and Optical Media Antipiracy Coalition Co-chairing new group are Stan Bauer, Fuji vp-gen. mgr. Magnetic Markets, Larry Bennett, Premiere Video pres.-CEO; Paul Scott, Technicolor



senior vp-video sales. N coalition "reflects the fact that this entertainment format still represents the largest share of the entire recording media industry and continues to flourish," IRMA Exec. Vp Charles Van Horn said. ----- Consumer encoders for Dolby Digital surround sound system have been developed separately by Matsushita and Pioneer. Technology will enable upcoming home recorders using DVD, PC hard disc or other media to record audio in multichannel digital format from broadcast or online sources, companies said. Each said its processor complies with Dolby Digital Consumer Encoder (DDCE) standard, meaning that incoming audio is compressed to 1/3-1/10 of original data to produce bitstream that can be decoded by current Dolby Digital circuits in DVD players, home theater receivers and processors, as well as digital TVs using U.S.- developed ATSC standard. Dolby Digital also is surround-sound format adopted by U.S.-based satellite TV programmers and most theatrical productions. Matsushita said its single-chip encoder will be available in sample quantities by year-end at about \$56. Pioneer didn't announce delivery or pricing. Compared with professional Dolby Digital encoders, consumer versions need less processing power and voltage. ----- First 4" VGA-format LCD using low-temperature polysilicon TFT was announced for immediate sale by Toshiba last week. Lightweight, high-brightness, low-voltage panel has 640x480 pixels resolution, Toshiba said. Compared with amorphous silicon used in conventional TFT-LCDs, crystallized silicon (polysilicon) permits faster flow of electrons between transistors. Design reduces components needed in display 40%, resulting in smaller size, greater reliability, higher resolution. Those improvements and lower power consumption are deemed essential for next-generation mobile electronics devices. New panel displays 256,000 colors, has 250:1 contrast ratio, 0.126 mm pixel pitch, 40 millisecond response time. It consumes 350 mW and weighs one oz. Sample price is \$435. Toshiba previously announced 8.4" and 10.4" low temperature polysilicon screens for use in portable PCs.

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PUBLISHER NAME: Warren Publishing, Inc.

INDUSTRY NAMES: BUSN (Any type of business); ELEC (Electronics)

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**-MICROSOFT: Gates delivers COMDEX keynote.**

M2 Presswire, pNA

Nov 16, 1998

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 909

TEXT:

M2 PRESSWIRE-16 November 1998-MICROSOFT: Gates delivers COMDEX keynote  
(C)1994-98 M2 COMMUNICATIONS LTD RDATE:151198 -- Speaks of the promise and pitfalls of the information age In an optimistic and forward-looking keynote address at COMDEX/Fall '98, Microsoft Corp. Chairman and CEO Bill Gates today spoke of how innovation in PC technology will continue to improve people's lives in **numerous** new ways. But he cautioned that the industry must tackle two key issues - increased complexity and threats to privacy - if it is to build on its remarkable success. Gates spoke of the great potential of the **many** new products enabled by the PC, such as eBooks (electronic books). Gates also unveiled Microsoft's innovative and pioneering new ClearType font technology, which will make eBooks and the LCD screens found on laptops and other computers almost as clear and easy to read as the printed page. "The ClearType software offers a breakthrough in screen readability that wasn't expected for another five years," said Gates. Gates predicted that, with broad support from eBook manufacturers and the world's largest publishers, the fledgling eBook industry will take off far more rapidly than anyone has previously forecast. "The shape of books as we know them is changing," Gates said. "By 2001, 50,000 electronic titles will be available, and millions of people will be reading books in electronic form. Each eBook will have the capacity to **store** literally tens of thousands of titles - as **many** as you find in some bookstores today." These personal libraries, he said, will make reading easier and more convenient, while helping to **preserve** the environment by **saving** millions of trees. The proliferation of what he called "personal companions," eBooks and other **portable** interactive **devices** based on open PC and Internet standards, is making the dream of information everywhere a reality, Gates said. Such innovations offer enormous benefits to consumers and business computer users who increasingly need access to data wherever they are, while offering the entire PC industry vast potential for growth. But, Gates cautioned, the increasing number of devices and media on which data is stored could soon swamp customers unless the industry puts simplicity first. At Microsoft, Gates emphasized, conquering complexity is the No. 1 priority. Demonstrating Microsoft's efforts to combat complexity, Gates showed how Microsoft Office 2000 will tailor itself to the individual user for increased ease and productivity, and how the software can repair itself if files are accidentally deleted. Gates also demonstrated how Microsoft SQL Server 7.0 enables developers to build databases that can be searched using simple questions in English. Such innovations, Gates said, will help Microsoft's customers cut through the complexity of computing. "Rather than making customers learn and adapt to our software, we are designing software that learns and adapts to our customers," he said. But simplicity alone is not enough, Gates said. He cautioned that the industry should heed consumers' fears about the security of all the devices and media - especially the Internet - on which their personal **data** is stored. While noting that this is nothing **new** - paper **records** of personal **data** have proliferated uncontrollably since the introduction of the bank account - Gates acknowledged the fear of **many** consumers that, in an online world, their personal data is more easily accessible and insecure than ever. "We in the industry must meet our responsibilities in this area. As we provide people with the tools to go online, we must protect their privacy every step of the way," Gates said. He discussed the industry initiatives that are already in place, from the Online Privacy Alliance to TRUSTe, and described Microsoft's own efforts to assure privacy, from providing privacy statements on all Microsoft Web sites to designing the tools and business practices to lead the industry's

privacy crusade. Gates' tech was introduced by a humorous video of his past year's "highlights" - getting a pie in the face in Brussels, participating in the Senate hearing, being sued by the government, "appearing" on MTV's Celebrity Death Match, and watching while Windows 98 crashed at COMDEX/Spring - and ended on an upbeat note. The PC, he said, is not only making amazing gains in enterprisewide systems, as evidenced by the fact that corporations are adopting the Microsoft Windows NT operating system **version 4.0** at a faster rate than any other mission-critical operating system, it is also making possible dozens of new leisure-time activities, from reading eBooks to practicing digital photography to competing in virtual motocross. Thanks to this innovation, Gates concluded, the PC industry is on the brink of the strongest period of growth it has ever seen. "Ninety percent of the innovations this industry has to offer its customers are yet to come," Gates said. "So to those who think PC technology has run its course, I have a simple message: You ain't seen nothin' yet." Founded in 1975, Microsoft (Nasdaq "MSFT") is the worldwide leader in software for personal computers. The company offers a wide range of products and services for business and personal use, each designed with the mission to make it easier and more enjoyable for people to take advantage of the full power of personal computing every day. Microsoft, ClearType, Windows and Windows NT are either registered trademarks or trademarks of Microsoft Corp. in the United States and/or other countries. Other product and company names herein may be trademarks of their respective owners. \*M2 COMMUNICATIONS DISCLAIMS ALL LIABILITY FOR INFORMATION PROVIDED WITHIN M2 PRESSWIRE. **DATA SUPPLIED BY NAMED PARTY** /PARTIES.\*

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NAICS CODES: 51121 (Software Publishers)

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...Gates today spoke of how innovation in PC technology will continue to improve people's lives in **numerous** new ways. But he cautioned that the industry must tackle two key issues - increased complexity and threats...

...if it is to build on its remarkable success. Gates spoke of the great potential of the **many** new products enabled by the PC, such as eBooks (electronic books). Gates also unveiled Microsoft's innovative...  
...millions of people will be reading books in electronic form. Each eBook will have the capacity to **store** literally tens of thousands of titles - as **many** as you find in some bookstores today." These personal libraries, he said, will make reading easier and more convenient, while helping to **preserve** the environment by **saving** millions of trees. The proliferation of what he called "personal companions," eBooks and other **portable** interactive **devices** based on open PC and Internet standards, is making the dream of information everywhere a reality, Gates...

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...enterprisewide systems, as evidenced by the fact that corporations are adopting the Microsoft Windows NT operating system **version 4.0** at a faster rate than any other mission-critical operating system, it is also making...

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**-PUMA TECHNOLOGY: Intellisync for notebooks launches**

M2 Presswire, pN/A

July 6, 1998

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 1113

TEXT:

M2 PRESSWIRE-6 July 1998-PUMA TECHNOLOGY: Intellisync for notebooks launches (C)1994-98 M2 COMMUNICATIONS LTD RDATE:060798 **New** Generation Software Enables **File** Transfer and Direct Synchronisation Of PIM, Contact and Scheduling Applications between PCs & Notebooks Roderick Manhattan, a division of the PlanIT Group, and the UK's leading independent republisher today announced an innovative solution that synchronises all of a mobile professional's key PC-based data. IntelliSync for Notebooks, developed by Puma Technology Inc. (NASDAQ:PUMA), the leader in Mobile **Data** Exchange software, is a **new** generation personal **information** management (PIM) and **file** transfer/synchronisation software solution for PC-to-Notebook connectivity. A native Windows 95 application, IntelliSync for Notebooks advances the state of "content-aware" data synchronisation by offering direct PIM-to-PIM advanced synchronisation between notebook and desktop PCs even if the PIMs on the two devices are not the same. Additionally, IntelliSync for Notebooks provides a comprehensive suite of PC-to-Notebook file transfer and file synchronisation features to satisfy even the most demanding file maintenance tasks. IntelliSync for Notebooks is unique in its ability to provide both file transfer/synchronisation and PIM synchronisation in a single PC-to-Notebook connectivity product. Advanced PIM-To-PIM Synchronisation IntelliSync for Notebooks' unique PIM synchronisation capabilities are well suited to a wide variety of user environments. It is an ideal solution for individuals or workgroups whose companies have standardised on particular PIM or scheduling applications for corporate use, but who prefer to use a different application that is better suited to their particular needs on their own notebooks. Now, with IntelliSync for Notebooks' record and field-level synchronisation, all of a user's contact, "to do" and calendar information from the corporate PIM application can be smoothly, accurately and seamlessly synchronised to the PIM of the individual or workgroup. IntelliSync for Notebooks' PIM synchronisation is ideal for mobile professional. While **many** PIM applications offer a method of synchronising the network server-based data with that of the client's desktop PC, virtually none offer IntelliSync for Notebooks' convenience of synchronising the PIM data directly between the desktop and notebook in a true peer-to-peer environment. Previously users would have either limited or no convenient method of updating the information stored in their notebook PC-based PIM with that of the PIM on their desktop. IntelliSync for Notebooks supports a wide variety of PIMs including Outlook 97, Lotus Organizer 97, Microsoft Schedule+ 7.0/7.0a/7.5, Lotus Organizer 2.1, GoldMine 3.2, Symantec ACT! 3.0.6, and DayTimer Organizer 2.0/2.1 to name a few. "PC-to-Notebook synchronisation between various PIMs running on different devices is the next logical step in the evolution of synchronisation," said Steve Russell, RMG's director of marketing & business development. "This makes it easier for mobile professionals to **keep** critical contact **information** **updated** and synchronised on a regular basis." IntelliSync For Notebooks As A New Generation Solution For Mobile Professionals IntelliSync for Notebooks is the more powerful successor to Puma's widely adopted TranXit line of wireless infrared (IR) connectivity software which enables both **mobile** and desktop **computer** users to seamlessly and wirelessly synchronise, print and transfer files across diverse operating systems and hardware platforms in real time. IntelliSync for Notebooks is a new generation

solution for advanced synchronisation following on the heels of TranXit, but taking the core synchronisation technology to new heights. IntelliSync for Notebooks further increases user productivity through simplifying daily activities for **mobile computer** users via **many** new synchronisation enhancements. Supporting both wireless infrared (IR) and cable connections (serial and parallel), IntelliSync for Notebooks is compatible with all **versions** of TranXit for file-transfer and file synchronisation, giving IntelliSync for Notebooks users convenient connectivity with the millions of Puma TranXit users worldwide. File Transfer and Synchronisation In addition to its powerful synchronisation capabilities, IntelliSync for Notebooks also offers a full complement of PC-to-Notebook file transfer and file maintenance features using the familiar Windows 95 Explorer look and feel. IntelliSync for Notebooks provides copy, move, delete and create functions for both files and directories on a local or remote PC. IntelliSync for Notebooks also supports inbox/outbox file transfer for added security as well as "named" and "Express" outboxes for deferred file transfer. "It is cumbersome and extremely time consuming for people on the move to constantly have to manually update their desktop or network-based PIM with that of their notebook PC or vice-versa, in an effort to **keep** both databases in sync, adds Russell. "Intellisync for Notebooks provides notebook and desktop PC users with a quick and easy method of synchronisation." Ease-Of-Use After an easy set-up process, users simply choose the files and/or PIMs they wish to synchronise and IntelliSync for Notebooks completes the process quickly and accurately ensuring that the correct **data** is **updated** and stored according to user preference. IntelliSync for Notebooks also gives the user significant flexibility in customisation and set-up. For example, users can specify which desktop PC application is to be synchronised with a notebook PC application, even specifying the individual field mappings between the applications, what date ranges of a schedule are to be synchronised, and whether all or only pending action items are to be synchronised. Users can also synchronise files on two computers with a click of the mouse and can even create jobs that automatically synchronise both files and PIMs on two different systems. Puma Technology Puma Technology, Inc. (NASDAQ:PUMA) is the leading provider of Mobile Data Exchange software, high-performance wireless infrared connectivity solutions that allow users to easily exchange or access information and applications from a remote **computer** over both **wireless** and wired media, and content aware data synchronisation software for PCs and hand held devices. Roderick Manhattan Roderick Manhattan is the UK's leading independent republisher and a division of the PlanIT Group. RMG boasts an incredible range of multi-award winning, best-selling business and utilities software. Established for over 12 years in the UK software industry, RMG has built an enviable reputation for consistently topping the retail sales charts with brand leaders. Pricing, Availability & Contact Information IntelliSync for Notebooks has an RRP of 39.99 inc. VAT. Products are distributed in the U.K. through Gem Distribution, Ingram Micro and Centresoft and are sold by all the major retail stores nationwide, including PC World, and Staples, as well as large resellers such as Software Warehouse and Action Computer Supplies. CONTACT: Jacki Vause/Louise Tarpey, Flapjack Communications Tel: +44 (0)171 224 4554 Fax: +44 (0)171 935 4052 e-mail: info@flapjack.com WWW: http://www.flapjack.com Steve Russell, Roderick Manhattan Tel: +44 (0)181 875 4400 Fax: +44 (0)181 875 4401 e-mail: stever@rmg.co.uk WWW: http://www.rmg.com \*M2 COMMUNICATIONS DISCLAIMS ALL LIABILITY FOR INFORMATION PROVIDED WITHIN M2 PRESSWIRE. **DATA** SUPPLIED BY NAMED **PARTY** /PARTIES.\*

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...infrared connectivity solutions that allow users to easily exchange or access information and applications from a remote computer over both wireless and wired media, and content aware data synchronisation software for PCs and hand held devices. Roderick Manhattan...uk WWW:  
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NEW IBM THINKPADS PACK POWERFUL MULTIMEDIA AND GLOBAL COMMUNICATIONS INTO A MOBILE COMPUTER

M2 Presswire, pN/A  
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M2 PRESSWIRE-7 November 1994-NEW IBM THINKPADS PACK POWERFUL MULTIMEDIA AND GLOBAL COMMUNICATIONS INTO A MOBILE COMPUTER (C)1994 M2 COMMUNICATIONS LTD RDATE: 171094 Built-in CD-ROM and telephone Putting more flexibility and choice into the hands and briefcases of mobile computer users, IBM Corporation today announced new models of IBM ThinkPad\* systems, the

industry's most highly acclaimed notebook computers. With unprecedented built-in features and an easy-to-use, sleek design, the new IBM ThinkPads are powerful entertainment, presentation, and worldwide communications tools packaged ready to use. Additions to the IBM ThinkPad 755, 360 and 340 series include enhancements to the ThinkPad 755 series (755CE and 755CD) and to the ThinkPad 360 series (36DCSE and 360CE). All new models are backed by IBM's outstanding service and support, sporting technical support through IBM Helpware\* and up to a three year international warranty service. "The IBM ThinkPad has leadership technology, impeccable quality and award-winning design which makes it the most desirable **mobile computer** on the market," said Gary Milner, marketing Manager of mobile computing. "Today's announcement clearly reaffirms ThinkPad's reputation as the **mobile computer** that everyone would want to own. Our emphasis is on higher performance, advanced function and solutions". The ThinkPad 755CD is a unique, innovative mobile multimedia solution with a built-in, full-sized CD-ROM, stereo speakers, enhanced video and television integration features and a game port, all at a light 7.3 pounds. In addition, one of the most value-priced, premium-designed notebooks in the industry, the IBM ThinkPad 360 Series, just became even better value. The two new colour models, ThinkPad 360CE and 360CSE, feature a faster 486DX2 50 MHz processor, standard hard drives of 170, 340, 540 and 810 millionbytes (MB), and an integrated math co-processor that makes intensive spreadsheet of computer-aided design applications a lot faster. A complete solution With exclusive IBM technology, the ThinkPad 755 Series is clearly a top of the line premium notebook. Unlike **many** other notebooks available today, both the ThinkPad 755CE and 755CD are packed with important features, such as: \* a fully-functional and expandable Mwave\* Digital Signal Processor (DSP), which provides built-in, high-speed data/fax modem (subject to country-PTT approval), telephony including answering machine, speakerphone and message/document **storing** functions, as well as advanced audio to support a wide range of game and business software; \* the latest glare resistant 10.4 inch (measured diagonally) IBM Black-matrix-on-Array colour screen, with up to 65,536 simultaneous colours, and better viewability indoors and outdoors; \* a built in, high speed infrared file transfer capability Connectix\* technology, allowing connection to other **portable devices**. This technology is compliant with the latest IRDA (Infrared Data Association) standards, whilst offering a ten times enhancement in **data** transfer. \* an **upgrade** of IBM's acclaimed keyboard-based, pressure-sensitive pointing device, the TrackPoint III\* -- now with a non-slip, textured cap for better pointing and cursor control, and advanced software for more accurate pointing movements -- coupled with click buttons enhanced with the addition of "drag and drop" capability; \* an impressive combination of power, speed and storage with an extremely fast Intel 486DX4 100 MHz processor, and 8 MB of random access memory (RAM), expandable to 40 MB. \* IBM RediSafe\*, a new power management mode which provides assurance against loss of data due to power failure. \* IBM UltraBay\*, an enhancement to the ThinkPad modular floppy disk drive bay, featuring an intelligent bus that automatically configures itself to accept options such as PCMCIA cartridge. MultiMultimedia Ready The IBM ThinkPad 755CD integrates powerful multimedia tools in a premium notebook, eliminating the need for multimedia customers to carry separate CD-ROM drives, docking stations, or additional projection devices. This system simplifies mobile multimedia applications such as using a ThinkPad to sell a new movie or television production idea, train a mobile sales force or remote personnel or **store** the company technical service Manuals. A removeable, double-speed 5.25-inch CD-ROM drive allows customers to install and run all the latest multimedia titles. ThinkPad 755CD is compliant with the MPC2 multimedia standard, and comes preloaded with a selection of multimedia entertainment, office automation and graphics titles. A mini port allows for connection to a joystick or MIDI device for using electronic instruments, such as an electric guitar, to compose music. The ThinkPad 755CD can connect to a television set (PAL/NTSC compatible), providing customers with the flexibility of choosing from a selection of projection devices. The system easily captures still or motion pictures from a VCR or video camera for playback. Special enhanced-motion video acceleration applies high resolution picture smoothing techniques to improve image quality when quick changes are made in picture size. All of this is topped off with 16-bit



audio and two built-in stereo speakers, an improved integrated microphone, and an easily accessible manual speaker volume control. The ThinkPad 755CD has enough storage for multimedia applications with a standard 540 or 810 MB drive. The ThinkPad 755CE features a 340, 540 or 810 MB hard drive. Solutions ALL new Thinkpad models come fully loaded with a wide variety of software titles, including Lotus Screencam, an ideal tool for creating multimedia training applications for remote workers, Lotus Organiser, Lotus ccMail Mobile, Asymetrix Personal Edition, Asymetrix Digital Video Producer (755CD only), AudioFile TalkEorks, Triton CoSession Host, Puma Tranxit OAG Flightdisk and Video for Windows (runtime). These applications provide time management, personal planning information (flight schedules), personal presentation capability, Voice messaging software, Infrared control, remote communications support and video capture and edit facilities. The range of applications available on these ThinkPads are unrivalled, "No other notebook offers the performance and range of solutions that the new 755 models offer", said Gary Milner, EMEA marketing manager of mobile computing. Docking and Desktop Replacement All of the ThinkPad 360 and 755 models support four IBM docking solutions providing the user with a range of choices that replace the desktop unit. The four docking solutions include: the portable Dock I with an internal slot and bay, Dock II with multiple slots/bays/PCMCIA capability and two port replicators, with or without PCMCIA slots. The new ThinkPad 755CE and 755CD support the ability to dock with the ThinkPad Dock II, allowing the user to dock or undock whilst the system is suspended, without the need for reconfiguring the machine. However, even without docking stations, the new ThinkPads are easily used as a primary computer system. Plug and Play Ease Achieving Plug and Play simplicity is easy when using the Thinkpad system's Personal Computer Memory card international Association (PCMCIA) slots. All ThinkPads are preloaded with the IBM PC Card Director\* utility, which automatically configures many PCMCIA cards and automates the launches of applications. PC Card Director also gives the customer the added benefit of visible and audible confirmation when a card has been inserted or removed. Every ThinkPad has the added expansion and growth flexibility of industry-standard PCMCIA slots. IBM ThinkPad 360 and 755 Series are configured with a Type III slot, capable of having one Type III or two Type I or II cards. In addition, users of the new ThinkPad 755 models can increase the number of available PCMCIA slots with a new option, the ThinkPad PCMCIA Cartridge, like previous ThinkPad add-in modules, the PCMCIA Cartridge is inserted by lifting the "pop-up" keyboard and swapping the new option for the removable floppy drive. Outstanding Mobile Service and Support The new Thinkpad 755 models come with a three-year international limited warranty service, honoured wherever IBM or IBM remarketers sell and/or service IBM PC products; currently in more than 120 countries around the globe. Also available to ThinkPad customers is IBM HelpWare, the most comprehensive service and support infrastructure in the industry. Headquartered in Armonk, N.Y., IBM is one of the industry's leading vendors of personal computers. IBM introduced the first PC to use the x86 architecture in August 1981 and helped to spawn the \$100-billion dollar personal computer industry. Today, the company develops, manufactures, markets and distributes a variety of PCs -- from subnotebooks to high-end servers -- as well as a line of monitors, peripherals and accessories, in more than 140 countries worldwide. \* Trademark or registered trademark of the International Business Machines Corporation. \* CoSession is a trademark of Triton Technologies Inc. \* OAG and Flightdisk are trademarks of official Airline Guide Company. \* Lotus is a registered trademark of Lotus Corporation. CONTACT: Chris Alder Tel: +44 705 563069 M2 COMMUNICATIONS LTD DISCLAIMS ALL LIABILITY FOR INFORMATION PROVIDED WITHIN M2 PRESSWIRE. DATA SUPPLIED BY NAMED PARTY /PARTIES.

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...speed data/fax modem (subject to country-PTT approval), telephony including answering machine, speakerphone and message/document **storing** functions, as well as advanced audio to support a wide range of game and business software; \* the...

...and outdoors; \* a built in, high speed infrared file transfer capability Connectix\* technology, allowing connection to other **portable devices**. This technology is compliant with the latest IRDA (Infrared Data Association) standards, whilst offering a ten times enhancement in **data** transfer. \* an **upgrade** of IBM's acclaimed keyboard-based, pressure-sensitive pointing device, the TrackPoint III\* -- now with a non ...

...sell a new movie or television production idea, train a mobile sales force or remote personnel or **store** the company technical service Manuals. A removeable, double-speed 5.25-inch CD-ROM drive allows customers...

...ideal tool for creating multimedia training applications for remote workers, Lotus Organiser, Lotus ccMail Mobile, Asymetrix Personal **Edition**, Asymetrix Digital Video Producer (755CD only), AudioFile TalkEorks, Triton CoSession Host, Puma Tranxit OAG Flightdisk and Video include: the portable Dock I with an internal slot and bay, Dock II with **multiple** slots/bays/PCMCIA capability and two port replicators, with or without PCMCIA slots. The new ThinkPad 755CE...

...Association (PCMCIA) slots. All ThinkPads are preloaded with the IBM PC Card Director\* utility, which automatically configures **many** PCMCIA cards and automates the launches of applications. PC Card Director also gives the customer the added...

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NO strings attached;Wireless e-commerce promises to free sales people,  
**empower field techs and delight customers.(Brief Article)**

NELSON, KRISTI

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TEXT:

...information. As hardware, software and service vendors team up to leverage the technology, the opportunities appear limitless. **Wireless devices** like the Palm VII wireless hand-held and a wide array of Internet-enabled cellular phones are...

...built around taking the applications that already reside in the corporation today and extending those onto a **wireless device**." Indeed, **wireless** applications have already taken hold in industries such as transportation and shipping, where **many** field sales forces have been equipped as wire line connections aren't an option. Field service organizations...

...going to become pretty efficient." Until recently, such wireless applications have required highly customized solutions. However, as **communication** costs continue to decline and new **wireless devices** are developed, software vendors are working to develop more mainstream solutions for businesses. For example, Siebel Systems...

...to time-critical customer data from their mobile phones and other wireless Internet handsets. Expected to be **released** this spring, Siebel Wireless will integrate with Siebel's current customer relationship management vertical solutions. It will...

...analyst at Aberdeen Group's CRM practice. Emerging wireless markets Wireless applications ultimately will allow companies to **communicate** with customers through handheld **devices** to **target** personalized promotions, provide access to customer service **information**, automatically alert customers to **new** products, and even test pricing strategies. "There's an abundance of new uses that we'll probably...

...The companies will develop strategies and creative approaches for the delivery of advertising to FusionOne subscribers on **wireless devices**, such as smart phones and personal digital assistants. Another emerging area of development will be in partnership relationship management, according to Smith. "**Many** vendors are talking about mobile PRM -- which is providing suppliers, partners and the whole channel with information...

...forces to help meet the growing demand for e-businesses worldwide to link data and applications to **wireless devices**. The companies will jointly develop a "voice and data engine," which will offer businesses an easy way...